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ABSTRACT

Focusing on the improvement of graduate programs in vocational education, this monograph is organized into two sections. Section 1 reports the results of a survey initiated by the National Resource Panel of graduate programs in vocational education in the United States. Section 2 contains working papers used in a workshop which addressed the topic, "Dimensions of Quality in Graduate Programs in Vocational Education." The titles and authors of the papers are as follow: "Overview of Graduate Training Programs," by Chester McKee; "Vocational Education Graduate Programs: An Analysis," by Henry Buckell; "Vocational Education Programs: Building on the Merits," by Norman Durham; and "Quality Programs for the Future," by Carl Dolce. Also included are summaries of observations and discussions by workshop participants. The appendices contains a list of graduate schools with degree programs in vocational education, a list of institutions participating in the workshop, a roster of workshop participants, and a description of departmental functions, objectives and criterion questions for the Department of Practical Arts and Vocational Education, University of Missouri. (JH)

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Graduate Training In Vocational Education

Survey of Graduate Schools

Proceedings: Workshop on Graduate Training in Vocational Education

JOHN D. SKINKLE and KATY L. GREENWOOD
EDITORS

ROBERT P. VAN TRIES
Chairman, National Resource Panel - 552
Adjunct Professor, Graduate School, University of Minnesota
Assistant Commissioner for Vocational Education,
Minnesota State Department of Education

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FOREWORD

This monograph is an outgrowth of a search for ways to improve graduate programs in Vocational Education. It includes:

- o an inventory of graduate programs in vocational education in the United States;
- o the focused intent of a number of Universities to improve graduate programs in Vocational Education through activities authorized under the Education Professions Development Act (Part F, Section 552);
- o working papers used in a workshop which addressed the "Dimensions of Quality in Graduate Programs in Vocational Education"; and
- o summaries of discussions addressed to program quality at the graduate level.

The two characteristics of graduate level vocational education which stand out clearly are that (a) it is closely associated with many facets of what is commonly termed "the public interest". It is, therefore, a dynamic as well as a difficult enterprise.

This monograph culminates an exercise in institutional collaboration aimed at the improvement of graduate programs in vocational education. Its purpose is to offer a basis for thinking about ways to further improve such programs.

Gordon I. Swanson
St. Paul, Minnesota

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SURVEY OF GRADUATE SCHOOLS

Survey of Graduate Schools

by

John D. Skinkle[1]

The inclusion of training and development programs for vocational education personnel as a part of the 1968 Vocational Education Amendments, and later the Education Amendments of 1976, was in response to an identified need. Due to an increase in vocational education enrollments at both the secondary and post-secondary level and a diversification in the types of clientele served (i.e. adults, handicapped, and disadvantaged), there has been an expanding obligation for the field to provide the professional personnel capable of meeting the needs of these students. However, the information base for assessing the capacity of the field to provide the kind of advanced training needed has been practically non-existant.

It was intended that the EPDA (Education Professions Development Act), Part F, Section 552 programs would specifically enhance the capacity of higher education institutions to provide professional development programs for vocational educators. By legislative authority, these programs were designed and funded in order to increase the supply of qualified, high-level leadership personnel in vocational and technical education. This was to be accomplished by expanding the number and relevance of vocational education degrees, enlarging the institutional commitment to graduate vocational education, and revising programs in order that they would more directly address the professional needs of the field. In addition, it was hoped that such programs would impact graduate training in vocational education at those institutions other than the ones approved for EPD 552 programs. Unfortunately, the potential capacity of all graduate schools to further expand their contribution to vocational education personnel development was, and remains, uncertain. The only thing evident is the substantial heterogeneity among graduate programs in vocational education. There appears to be considerable diversity with respect to both the "depth" and "specialization" of professional development experiences within graduate programs.

The current institutional capacity to provide for the efficient and effective professional development of personnel in the field in terms of both quantitative and qualitative dimensions should be viewed as a function of (1)the comprehensiveness of graduate school programs in vocational education and (2) the professional talent available to organize and provide such training. But, even though vocational education researchers and evaluators have, at times, attempted to analyze

[1]Mr. Skinkle is a Project Assistant at the University of Minnesota.

and specifically determine the productivity of vocational education departments according to various descriptive criteria, there has been little accomplished with respect to the determination of what makes one institution's graduate program more productive or successful than that of another. Consequently, if such programs are to be strengthened, it is essential to achieve a clearer understanding of the institutional capacity to perform this function.

Scope of Survey

As a preface to future research relative to the institutional capacity to provide the professional development training needed by personnel within vocational education, the National Resource Panel (a part of the National Project for Improving Institutional Capability to Prepare Vocational Education Teachers and Leaders - an EPDA 553 project) initiated a survey of graduate institutions in this country. Basically, this survey was an attempt to determine which universities and colleges in the United States have graduate programs in vocational education. It was expected that this effort would highlight some of the quantitative aspects of the institutional capacity; it was not intended that this survey afford data for the analysis of various qualitative dimensions of the institutional capacity.

The justifications for limiting this survey to various quantitative rather than qualitative dimensions were several. First, the nature of "capacity" within and across various types of institutions has not been adequately delineated. Because professional development is a complex concept, there are inherent difficulties in assessing the capacity of an institution because it requires consideration of more than one component of the institutional program(s) and the interaction between these components. In any effort to consider the qualitative capacity to provide professional development experiences, it is essential to clarify the extent of relationship between integral programmatic dimensions. It is necessary to assess what is done within a program, why it is done, and how it is done.

Second, the dimensions to be reviewed in assessing the quality of professional competence achieved in such training programs has yet to be sufficiently defined. And, to further complicate matters, the qualitative capacity of the institution to develop such professional competence will not have an absolute value; rather, it will be a relative dimension which in itself will require due consideration through the collective action of those in the field responsible for graduate programs in vocational education.

Third, the nature of program "comprehensiveness" has yet to be determined. Consensus has not yet been reached as to whether program comprehensiveness is defined by the number of occupation specialties (service areas) represented within the organizational structure of the vocational education department or the resources, staff, facilities, services, and/or programmatic offerings available.

Finally, the essence of expansion, either quantitatively or qualitatively, occuring in an institution-based program of professional development has not been clearly specified. The determination of relative institutional capacity will be a function of program adjustment to needs of individuals and the profession coupled with the setting of new priorities.

The actual conduct of the survey included the development of a brief questionnaire which was subsequently sent to the faculty representatives of those institutions which were members of the Council of Graduate

Schools in the United States (CGS). Of the 344 institutions listed as members of the Council in its updated directory, 296 responded to the questionnaire and returned them for analysis. This represented an eighty-six percent (86%) return rate.

Findings of the Survey

In response to the question as to whether or not graduate study was offered in the field of vocational education, 133 of those schools responding to the questionnaire indicated that they afforded students the opportunity to pursue graduate study in vocational education. (See Table 1.) This represents nearly 40% of those institutions who are members of the Council of Graduate Schools (CGS). And, although 48 of the institutions did not respond to the questionnaire, it is probably reasonable to assume that a very large percentage of this group did not offer such programs of study. This being the case, the percentage of those schools within the CGS which offered these programs would remain approximately the same.

	Yes	No	No Response	Totals
Frequencies	133	163	48	344
Percentage	38.7%	47.4%	13.9%	100.0%

TABLE 1: Opportunity to Pursue Graduate Study in Vocational Education Among Members of the Council of Graduate Schools

Those institutions which indicated that they offered programs of study in vocational education were then asked to identify what type of graduate degrees could be earned by students. The responses were categorized by the types of degrees (Master's, Specialist, Ed.D., and Ph.D.) and the program(s) of study (agricultural education, business education, career education, etc.). If an institution did not grant graduate degrees in a specific area of vocational education, they were still asked to identify the types of degrees that could be earned with a major in vocational education (or a service area within). This enabled the identification of those schools which emphasized vocational education as a program of study even though they might not grant a degree in the field. (See Addendum A for a listing of those institutions with graduate training programs in vocational education.)

A general breakdown of the number and percentage of schools which grant each type of degree are presented in Table 2. It should be noted that all but one of the institutions grant the Master's Degree in one or more areas of the field. The remaining types of degrees - Specialist, Ed.D., and/or Ph.D. - are granted by approximately one-third of the graduate schools. (Note: The percentages in Table 2 and the remaining tables in this report are based on the number of graduate schools - 133 - which have indicated that they offer graduate degree programs in vocational education.)

	Master's	Specialist	Ed.D.	Ph.D.
Frequencies	132	44	44	37
Percentage	99.2%	33.1%	33.1%	27.8%

TABLE 2: Number and Percentage of Graduate Schools Offering Degree Programs in Vocational Education

A more definitive classification of the types of degrees granted is illustrated in Table 3. In this particular instance, those degree programs classified as "other" include programs of technical education, adult education, vocational administration, extension education, vocational rehabilitation, and coordination and supervision. It can be seen in this table that 64% of those institutions offering graduate study in vocational education grant the Master's Degree in business education; in addition, approximately one-half of the schools grant the Master's Degree in home economics education, industrial arts education, and trade and industrial education. The tendancy for the greater percentage of these institutions to grant Specialist, Ed.D., and Ph.D. Degrees in these same areas, as opposed to others, is also evident. However, in this latter case, a relatively greater number of the institutions grant these degrees in "vocational education" rather than a specific service area.

	Master's	Specialist	Ed.D.	Ph.D.
Agricultural Education	49 36.8%	16 12.0%	10 7.5%	14 10.5%
Business Education	85 63.9%	28 21.1%	19 14.3%	18 13.5%
Distributive Education	48 36.1%	16 12.0%	9 6.8%	10 7.5%
Health Occupations Education	29 21.8%	5 3.8%	5 3.8%	8 6.0%
Home Economics Education	68 51.1%	16 12.0%	9 6.8%	14 10.5%
Industrial Arts Education	63 47.4%	19 14.3%	10 7.5%	8 6.0%
Trade & Industrial Education	57 42.9%	19 14.3%	14 10.5%	15 11.3%
General Vocational Education	46 34.6%	24 18.0%	34 25.6%	26 19.5%
Occupational Education	19 14.3%	3 2.3%	9 6.8%	8 6.0%
Career Education	15 11.3%	4 3.0%	6 4.5%	5 3.8%
Other	16 12.0%	4 3.0%	5 3.8%	5 3.8%

TABLE 3: Number and Percentage of Graduate Schools Offering Degree Programs in Specific Areas of Vocational Education

A further indication of the institutional capacity to provide graduate training on a nation-wide basis is illustrated in Table 4. There are 83 institutions which offer graduate study in four or less program areas such as distributive education, health occupations education, and others. This number represents approximately 62% of all schools with graduate programs in vocational education. More importantly, it should be noted that one-fourth (33) of the institutions reported that they provide graduate study in six or more program areas.

	Number of Program Areas						
	1	2	3	4	5	6+	Totals
Number of Institutions	31	19	20	13	17	33	133
Percentage	23.3%	14.3%	15.0%	9.8%	12.8%	24.8%	100%

TABLE 4: Number of Program Areas in Which Graduate Study is Offered by Individual Institutions

In Table 5, graduate schools were classified according to the types of degrees granted and the number of program areas in which they can be earned. For the advanced graduate degrees (Specialist, Ed.D., and Ph.D.), the greatest percentage of institutions offer programs of study leading to degrees in only one or two areas. Typically, as noted in the discussion of Table 3, these are broad-based areas such as "vocational education" and "occupational education" rather than specific service areas (i.e. agricultural education).

Number of Areas	Master's	Specialist	Ed.D.	Ph.D.
7 or more	21 15.8%	9 6.8%	5 3.8%	7 5.3%
5 or 6	27 20.3%	6 4.5%	4 3.0%	4 3.0%
3 or 4	34 25.6%	7 5.3%	9 6.8%	9 6.8%
1 or 2	50 37.6%	22 16.5%	26 19.5%	17 12.8%
Totals	132 99.2%	44 33.1%	44 33.1%	37 27.8%

TABLE 5: Number of Areas in Which Graduate Study is Offered by Individual Institutions Within Graduate Degree Programs

In addition, responses to the survey indicated that 42 graduate schools granted either one or both types of doctoral degrees (Ed.D. and Ph.D.). It is significant to note that half of these institutions have both types of degree programs available; of the remainder which grant only one type of doctoral degree, more than twice as many schools have Ed.D. programs. (See Table 6.)

	Ph.D.	Ed.D.	Both	Total
Frequencies	6	15	21	42
Percentage	4.5%	11.3%	15.8%	31.6%

TABLE 6: Number and Percentage of Graduate Schools Offering Doctoral Degree Programs in "Vocational Education" or "Occupational Education"

Further analysis of the data not presented in the tables indicated that there are 20 institutions which offer an Ed.D., Ph.D., or both in either "vocational education" or "occupational education" and graduate study in the five service areas of agricultural, trade and industrial, home economics, business, and distributive education. There are also three other graduate schools which do not have doctoral programs but do offer graduate study in the five service areas. One of these institutions offers only the Master's Degree while the other two also grant the Specialist Degree.

	Master's	Specialist	Ed.D.	Ph.D.	Totals
Agricultural Education	151	25	17	35	228
Business Education	919	37	28	27	1011
Distributive Education	205	13	8	4	230
Health Occupations Education	445	8	2	16	471
Home Economics Education	704	22	7	30	763
Industrial Arts Education	592	7	8	12	619
Trade & Industrial Education	462	2	22	14	521
General Vocational Education	478	28	121	60	687
Occupational Education	167	-	12	18	197
Career Education	52	4	3	-	59
Other	149	-	4	20	173
Totals	4324	167	232	236	4959

TABLE 7: Number of Students Who Received Degrees In Specific Areas of Vocational Education During the 1975-76 School Year

Finally, Table 7 indicates how many students completed each type of graduate degree within each program area during the 1975-76 school year. Totals for each program area and type of degree are also presented in the table. As might be expected, the largest number of students completed Master's degree programs. However, a total of 635 students had completed programs for either the specialist or doctoral degrees; 468 of these students earned the Ed.D. or Ph.D. degrees. Also, it is important to consider the total number of graduate degrees being granted within each specific program area. Even though the largest number of students are graduating with degrees in business education, there are significant numbers of students earning degrees in health occupations education, home economics education, trade and industrial education, and industrial arts education. (Contrasting these figures with those for agricultural education and distributive education highlights a situation which might possibly merit further attention in the future.) In addition, there is apparently considerable interest in the broader-based degrees of "vocational education" and "occupational education"; 884 students had completed degrees in these areas.

Concluding Remarks

As a precursor to future research, this survey has identified a critical mass of institutions which provide, and are committed to the furtherance of, graduate training in vocational education. And, even though this survey focused on the quantitative aspects of graduate study, neither qualitative or quantitative standards when used alone are adequate or sufficient for determining institutional capacity. The accumulation of only quantitative data will have limited bearing on the merit (quality) of the programs within a given institution; conversely, the determination of quality will be of little use if not linked to the realizable aims of the institution and the number of students to be served.

At this time, there is no formula or equation which will afford an accurate assessment of the institutional capacity to provide graduate training in vocational education, but two of the most important qualitative dimensions which will necessitate more attention in the future are (1) the mission of the vocational education department and (2) the performance characteristics of the departmental staff and the institution. In terms of the former, the capacity of the institution to provide effective graduate training will most certainly be a function of its objectives. Therein, the primary tasks and functional priorities should be defined. The clientele of the program will be identified and the means for remaining responsive to the needs of individuals will be described. Due consideration must also be given to the nature of substantive instruction and procedures enabling continuous review and renewal of the graduate program(s).

More specific to the qualitative aspects of performance characteristics, it will be necessary to consider several additional factors. For instance, the flow of personnel majoring in areas regarded as vocational education must be measured qualitatively as well as quantitatively. Faculty characteristics in terms of number, rank, and status for advising graduate students must be closely examined. It is also essential that the record of the faculty with respect to their professional contributions to the field be evaluated as an indicator of institutional capacity to provide the desired training programs. In addition, it will be desirable to determine the nature of and access to contributory subject-matter or disciplines of study which will enhance the professional development experiences of those persons enrolled in vocational education graduate training programs. Furthermore, it

would be most beneficial to more closely examine the individual institution's plan of action for the future. Hopefully, such a plan would address those dimensions noted above, but certainly there should be an attempt to link the institution's past record of action to further program improvement enhanced by an increasing institutional commitment to graduate training in vocational education as a priority for the future.

PROCEEDINGS: WORKSHOP ON GRADUATE TRAINING IN VOCATIONAL EDUCATION

Overview of Graduate Training Programs

by

J. Chester McKee[1]

Because of the rapid expansion of graduate study during the 1960's, the stage had been set for most of the problems which we have been trying to cope with during the 1970's. The National Defense Education Act (1958) was one of the first efforts to provide student support activities following Sputnik. Since then, there have been many graduate fellowships awarded through the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), the National Institute of Health (NIH), and the Education Professions Development Act (EPDA). Although this list is not exclusive, it does indicate the extent to which funds were made available and the degree to which it became economically profitable for many institutions to promote graduate study programs even though they had not done so before. It was profitable in the sense that education institutions sought to achieve "university" status if they did not already have it; if successful, they could compete for fellowships which included "cost of education allowances" that could be made available to the programs within the institutions.

Unfortunately, graduate programs were expanded too fast with too little planning. Presently, we are having to contend with the problems associated with the results of this action. Early in the 1970's, the Council of Graduate Schools (CGS) became concerned with this proliferation of progarms; since then, the CGS has issued several position statements regarding the Council's perceptions of what constitutes quality graduate education. For those departments and persons interested in developing quality graduate programs, publications of particular interest can be obtained from CGS. Among other things, these publications focus attention on such subjects as the Master's degree and the organization of graduate study on campus.

In the case of the latter, the many problems inherent to the organization and implementation of a graduate study program have become the significant issues for professional attention. These problems are further compounded by the fact that the programs, activities, structure, and other aspects of graduate study which may be successful and effective within one institution will not necessarily achieve the same results in another. Through committee action, CGS has delineated and articulated what might hopefully be considered a viable model for the organization of graduate programs within an institution. This work should warrant close examination by those interested in graduate study.

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[1]Dr. McKee is Vice President for Research and Graduate Studies at Mississippi State University - Mississippi State, Mississippi.

The Council has also established a consultation service available for nearly every field of graduate study that is offered within its member institutions. A list of consultants who have been thoroughly screened for their capabilities has been generated to assist institutions in program evaluation. Such an activity utilizing special consultants is presently recommended by the Southern Association of Colleges and Schools in its accrediting standards; the same activity is recommended in the CGS pamphlet on the doctoral degree.

The Council of Graduate Schools, in its concern for graduate study, has pursued a very active role with various accrediting bodies - in particular, the new Council on Postsecondary Accreditation. Recently, the Council on Postsecondary Education has been examining the non-traditional programs which are offered out of state. Such programs are subject to much controversy in terms of the manner and the mode in which they are being offered by certain "so-called" institutions. The Council on Postsecondary Accreditation has recently made a recommendation to all of the regional accrediting bodies which is astounding and which the CGS subscribes to enthusiastically. Basically, the recommendation is as follows: Where ever an off-campus program is offered leading to a degree, that program and that site should be examined by the appropriate regional accrediting body for that location.

In essence, this recommendation suggests that if an institution in one area (for example, the Southern Association area) offers an off-campus program in the North-Central Association area, the North-Central accrediting body should evaluate that program. This recommendation has generally received wide acceptance by most of the regional accrediting groups. CGS hails this move as a very significant action relative to insuring quality in these off-campus programs.

Another important project activity of the Council of Graduate Schools involves the work of a committee studying the problem of the proliferation of non-traditional graduate programs. This study is headed by Dean Shirley Prigg, Dean Emeritus, University of Rochester. A draft report from this committee is now available; it enumerates several recommendations for evaluating graduate programs for purposes of accreditation.

The work of the aforementioned committees is noted here to highlight the point that the Council is very concerned about the present development and continuing quality of programs in graduate education. Of course, early in the 1970's, there were many studies concerning graduate education done primarily by groups such as the National Board on Graduate Education. Several good publications were products of those efforts and they are probably available at your respective institutions. For instance, the publication entitled Scholarship for Society was the joint effort of several associations; it included several predictions about the future of graduate education. In particular, it presented a case for non-traditional programs.

However, the trend now appears to be changing. Because a number of entrepreneurs have seemingly over-stepped professional bounds with respect to the non-traditional programs, there is a definite and growing national concern for quality in graduate education programs. It is especially interesting to note that this particular conference is primarily concerned with the dimensions of quality; attention is being centered on assessing quality and developing the means for assuring that quality.

Another concern of the Council of Graduate Schools, in conjunction with the work of the Council on Postsecondary Education, concerns the matter of accreditation itself. This is an issue of great importance at

this time. Many persons are wondering whether or not there should be some form of accreditation for graduate programs other than the regional accreditation afforded by the regional associations. At the present time, many professional organizations do have their own professional accreditation. For initance, those persons in business organize their accrediting efforts through the American Assembly of Collegiate Schools of Business; engineers work through the Engineers Council for Professional Development; and social workers approve programs through the Council on Social Work Education.

Certainly, these efforts have done a great deal to improve the quality of those programs so accredited. But, the question still remains as to whether there should be some other generally applicable accreditation other than these. The position of the CGS is to oppose further accreditation movements. The Council would rather work through the appropriate regional accrediting bodies and encourage them to do a better job of evaluating graduate education in the member institutions and enhancing the present quality to the maximum extent possible. Of course, there are present efforts at the national level within various departments of the government to move into the accreditation business. Therefore, this problem is likely to remain before us and must be dealt with. The Council of Graduate Schools is giving further consideration to the problem at this time.

The matter of a present over-supply of doctoral graduates in some fields is also a trend and concern of great consequence. Answers to several pertinent questions must be forthcoming. Should there be artificial limits established to inhibit enrollment in certain programs simply because there are not enough jobs available? Or, do we allow students to use their own initiative and scholarly ambitions to enroll in a given program knowing that the job market is "tight"? The CGS position in this instance is that we need to continually develop the best information possible regarding the existing state of the job market so that students can be made aware of the conditions before they enroll in a program. CGS feels that graduate departments owe it to their prospective graduate students to let them know about the current job market situation, but the student certainly should be able to exercise his/her own "free will" to register where he/she wishes. Naturally, this position is qualified by the terms for admission to a graduate program because admission limitations are largely based on the resources of the departments.

Finally, although there are many other concerns to be addressed, there is one very important issue which is going to receive increasing national attention in the future. This issue involves the matter of increasing opportunities for graduate study for members of minority groups, women, and handicapped persons. And, even though this is a very difficult problem to deal with, the Council is working with groups to find ways and means of effectively increasing these opportunities. It would seem that the problem is basically one of finding the financial resources with which to support (a) those students institutions wish to enroll and (b) students who can cope with the rigors of a quality graduate program. It is evident that the desired students can be found; the principal problem is finding the financial resources to support the students because persons from minority groups have a very difficult time supporting themselves when undertaking a graduate program, particularly at the doctoral level.

The Conference of Deans of Black Graduate Schools is a body representing thirty-two graduate schools which have, historically and traditionally, been institutions with predominant enrollments of black students. This group is studying the issue carefully and they are vitally concerned

about minority group members enrolling in graduate programs. They perceive one of the most difficult problems involved in this matter to be the potential effect of expanding graduate programs on the traditional black institutions. On the one hand, there is a desire to bring more qualified black students into the mainstream, graduate education programs of the universities; on the other, such action could deprive the traditionally black institutions of some very fine students and important financial support. This problem will probably not be solved in the near future; the solution may be extremely difficult to determine.

THE DIMENSIONS OF QUALITY IN GRADUATE EDUCATION PROJECT

Another topic which will be of particular interest to members of this workshop is the involvement of the Council of Graduate Schools in a special project that is now nearing completion. The Dimensions of Quality in Graduate Education Project was first initiated when interest was renewed in conducting a research effort similar to the Roose-Andersen study or the Carter study. These reputational studies of graduate education were undertaken by Carter during the 1960's and by Roose-Andersen later. These studies were important in that they dealt with the reputations of hundreds of graduate schools. However, CGS did not feel that such studies offered definitive answers to the determination of what quality is and how it might be enhanced. First, the reputational study does not assist an institution in improving its quality because it does not attempt to assess program weaknesses, strengths, priority setting in terms of resource allocation, or other integral components of a quality graduate study program. Second, the results of a reputational study are indicative of a reputation which was gained by a given graduate program ten to fifteen years earlier. Since the quality and status of programs change over time, it is not always feasible to depend upon the program's reputation as being an up-to-date indicator of quality. Therefore, the Council of Graduate Schools decided to undertake a study aimed at answering two basic questions: Are there other value dimensions that can be assessed to determine quality? And, what is the most feasible means for acquiring useful information about these dimensions? After receiving a major grant from the National Science Foundation, CGS contracted with the Educational Testing Service (ETS) to conduct the Dimensions of Quality Project. Although this project has not yet been completed, there are several facets of it which might be of particular interest to vocational educators who are interested in assessing the quality of their own graduate programs.

In directing attention to the quality of doctoral education, the focus of this study was limited to the evaluation of ways to measure characteristics of programs that had been identified as important to the assessment of quality. Unfortunately, the concept of education quality is difficult to define in concrete terms since the meaning is always relative and always depends upon values, judgments, purposes, and standards. The measures developed in this project provide reliable ways to obtain quantitative indicators of several previously identified quality-related program characteristics. However, it should be noted that improved assessment procedures do not eliminate the need for value judgments about (a) the optimum level of a particular program on specific measures or (b) more broadly defined standards of excellence. (A summary of this project entitled Assessing Dimensions of Quality in Doctoral Education: A Technical Report of a National Study in Three Fields can be obtained from the Educational Testing Service in Princeton, New Jersey.)

Implications of two other aspects of the study design should also be made explicit. First, the assessment procedures were designed to be broadly applicable across disciplines and universities as well as

relatively easy and inexpensive to administer. Second, education quality is only one aspect of the program review. When making decisions about the future development of programs, attention must also be given to society's need for training in the area and the cost of the program in relation to its productivity. Therefore, the assessment procedures that are suggested in these reports are never sufficient, in themselves, for a comprehensive program review. Concentration on the assessment of quality is justified, however, by the theories of operational procedures in this area.

To briefly summarize the methodology used in this study, it should first be noted that a national sample of all graduate deans, whose institutions were members of the Council of Graduate Schools, were asked to list those elements which they felt were dimensions of quality in graduate programs; they were to also assess the relative importance of each. The results of this inquiry were analyzed and a certain number of dimensions (twenty-three) were chosen for further research. Obviously, it was not possible to research the hundreds of ideas suggested. Next, three fields of graduate study were chosen: chemistry, psychology and history. Twenty-three or twenty-four institutions were then selected to be used as sources of data for the survey.

Five questionnaires were developed with each soliciting somewhat different information, but together they afforded complete coverage of the list of twenty-three quality indicators identified by the graduate deans. These questionnaires were designed to be completed by four select groups: faculty, students, alumni, and department chairpersons. The fifth questionnaire was a department profile (or fact form).

The questionnaires were circulated to the departments for dissemination and the response rate to these instruments was excellent. Once the responses were tabulated and analyzed, a feedback report was generated and sent to each department to allow them to check for inaccuracies; this was an attempt to insure that valid data had been collected. In addition, the ETS researchers visited a representative number of the schools which had participated in the study and assessed for themselves the validity of the responses. When all validated data was returned to ETS, it was analyzed using correlation analysis and scatter plots. The result is, hopefully, a realistic assessment - by program - of the previously identified qualitative dimensions of graduate education.

Among the interesting findings of this study are those specific to student and faculty perceptions of graduate programs. For instance, in some cases graduate students rated the learning environment in their respective institutions as being very poor while the faculty may have received excellent peer ratings or excellent research profiles. Since student ratings of the learning environment should be an integral dimension of program quality, this situation is one which should be examined more closely.

Most importantly, this study has provided the means by which two or more departments, with graduate study programs in the same field, can be compared with each other. By using the five questionnaires to gather data, correlations can be computed and plotted and therein provide three basic forms of information. First, the staff at each of the institutions can determine how their school ranked (from "poor" to "excellent") on each of the quality dimensions irrespective of other institutions. Second, individual institutions can be compared with others on each of twenty-three quality dimensions of graduate programs. Third, it is possible to determine how each institution ranked on each of the dimensions relative to the mean ranking for all institutions.

On the other hand, there are several important questions which remain to be answered. Can departments rely on survey data as indicators of program quality when the surveys are conducted as part of the program review rather than as a research project? Are indicators based on survey data sufficient for program review? Should indicators based on survey data be collected and used by agencies external to the university?

Since the judgments of the participants were consistent within the programs, varied across the programs, and were related in ways expected of independent measures, it may be reasonable to assume that such indicators can be used for program review. However, because state agencies, governing boards, and 1202 commissions might be interested in using the data to consolidate graduate programs, the use of such data by agencies external to the university may not be appropriate at this point in time.

Finally, it might be useful for departments within each graduate education discipline to consider surveying a large number of graduate programs within their own field for purposes of generating sufficient data for making meaningful comparisons between institutions. It may even be desirable, if feasible, to group program data according to institution size.

Vocational Education Graduate Programs: An Analysis

by

Henry M. Brickell[1]

In attempting to undertake a critical analysis of graduate programs in vocational education, it is difficult to determine what standards to use in judging these programs. The institutions at this conference actually represent a standard. Those institutions which are not in attendance can look at the institutions present and know what they should be like. The problem is to decide how graduate programs can be judged either by their own respective staffs or by others. Unfortunately, the solution to this problem is probably not available from the National Council for the Accreditation of Teacher Education (NCATE), the Council of Graduate Schools (CGS), or even the accrediting associations. (The latter customarily and necessarily concern themselves with the minimum standards of acceptability.) To be helpful, it would be desirable to have "hard" data on the primary causes of quality. But, the problem still remains, there is no list or set of standards against which the quality of graduate programs in vocational education can be measured.

However, it was possible to examine (a) the idea of "the graduate school" and (b) graduate programs other than those in vocational education. It might also be possible to determine those things which each separate institution does well and organize them into a master list of possible dimensions to be used as standards. In this latter case, it was only possible to examine a cross-section of the applications for this conference, but at least there was some indication of what the staffs at the respective institutions thought they should be doing in terms of ideas, standards, and activities. So, there are at least three sources from which standards might be developed: (1) the idea of a graduate school, (2) graduate programs other than those in vocational education, and (3) the best features of those institutions represented at this conference.

In continuing with the analysis of graduate vocational programs, it will be beneficial to examine the issues raised from two perspectives: First, how do the institutions represented at this conference fare with respect to the questions addressed? Second, what is the status of the institutions not in attendance? This analysis is not only for those schools represented here; it is concerned with the entire field of graduate vocational education. However, if anything is going to be done to improve the present situation, it will have to be accomplished by the institutions at this conference. Those who are not in attendance are lacking in quality and they will not serve well as standards of graduate education.

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[1]Dr. Brickell is the Director for the Institute of Policy Studies in Education - New York, New York.

The remainder of the comments and questions in this paper will be specific to several themes. They include the following:

Theme #1 - Graduate School. What is a graduate school? In a classic sense, it is a professor studying something he does not understand with a little help, or maybe only encouragement, from other professors who are studying things they do not understand. But, the professor receives - if the graduate school is working properly - a lot of help from bright, young, future professors who are busy studying things which they do not understand. That is, a graduate school is a place where people spend their time - a great deal of it - studying things they do not understand or making things that did not exist previously. Professors conduct research; they engage in developmental activities; they study the unknown or create the non-existant.

This is the image of a graduate school. It is the "yardstick" against which to measure the quality of a graduate program. Does the staff within the program actually study the unknown and create the non-existant? Certainly, other things can be done in higher education, but they are not as central to the concept of the graduate school.

Theme #2 - Need for Quality Professors. The nation relies on the present and future professors in graduate schools. The public depends on them to determine the solutions to problems and provide the explanations to other people. Such problems may involve the analysis of cost-benefit relationships and various other important educational matters. But, if the professors are not learning, they cannot teach; at least they will not be teaching what is current. As a consequence, they are not likely to be interesting and they certainly will not be able to teach others how to learn. Yet, teaching others how to learn is the most important thing a professor can accomplish. Failing to do so will have serious implications for the field.

Theme #3 - Graduate Students as Apprentices. There is a view that the individual graduate student might be perceived as an apprentice following in the footsteps of, or trying to become, the master. If accepted, the question then arises as to whether any given professor exemplifies a professional life which should be copied. Are individual professors worthy of apprentices? Can the professor exhibit the skillful and creative behavior which should be imitated? Is the graduate program organized as an apprenticeship? Should it be? Are graduate training programs trying to develop carbon copies of their staff members? Are they trying to develop improved copies?

Theme #4 - Analogies of Excellence. Some institutions have graduate programs other than vocational education which might serve as interesting models. Among others, these include programs in physics, engineering, medicine, and agriculture. From them, it may be possible to generate some interesting analogies of what vocational education graduate training would be like if it were similar to them. What are the things done in those programs that are not done in vocational education? What would be the equivalence of their programmatic efforts?

Maybe, there ought to be a fraternity comprised of those institutions with quality graduate programs in the field of vocational education. This fraternity would produce and exchange faculty, students, ideas and research findings. It would be a group of institutions that could establish and maintain standards for themselves and even for those institutions of lesser quality. This fraternity could be active in setting, maintaining and policing standards for themselves and others. Progress in improving graduate programs is unlikely unless this is done.

Some interesting aspects relative to the analogies of excellence can best be described by examining the reasons why graduate schools of medicine put teaching hospitals in cities. Their main reason for doing so is based on the extensive amount of pathology in the cities; there are many diseases which medical students can become familiar with only if there is an enormous variety of pathological cases available. The point being - pathology is what doctors deal with, and it is something that medical schools want their students to be familiar with.

If it can be assumed that there is a fair analogy between graduate programs in vocational education and those in medicine, the next step is to consider what the pathology of vocational education is and how graduate programs can cope with it. What is "sick" in vocational education and how can graduate students be taught to diagnose it? Are students taught to improve on the situation? Are they actually shown sick programs? Do institutions with graduate vocational education programs encourage their staff to teach graduate students how to recognize sickness within their professional field? Are graduate students able to find a solution to the problems that may exist?

Medical schools want to give their students every opportunity to help in the treatment of pathological cases. Therefore, they work with teaching hospitals so that students can have these opportunities. Conversely, maybe the school should reverse the situation and have the students working with healthy people.

Similarly, maybe graduate students in vocational education should be encouraged to become familiar with the very best vocational programs operating within high schools, community colleges, undergraduate schools, and graduate schools. Perhaps they should be made aware of the quality in vocational education and not the sickness. But, how can that be done? What are the present arrangements by which this could be accomplished? What is the corpus of data that should be made available to graduate students so that they can determine for themselves what is sick and what is healthy within the field?

Another aspect of training medical students which may be transferable to graduate study in vocational education is the internship. Granted, some institutions presently encourage and assist with internships, but not all institutions have organized such activities. In addition, the internships in vocational education are seldom long enough; not everyone has access to them; and they do not always fit the career plans of the student. Also, internships are not always chosen because they are a coherent part of the training program. This being the case, how can vocational educators change the situation? Why are there such problems relative to internships? Why couldn't internships of one or two years be organized? Since all graduate students will not become professors, many individuals should be interning with personnel in state agencies, local school districts, private companies, and federal agencies.

Turning once again to the problem of "disease" in vocational education, it is necessary to also consider the "sick" professionals within the field. These include, among others, the local vocational director who cannot read labor market data and the state director who cannot plan. Such persons are part of the pathology within the field which graduate students should be made aware of and understand.

On the other hand, maybe it is not even realistic to compare graduate programs in medicine with those in vocational education. Those programs in the latter will never be as good as those of medicine. They will never have the money available to build programs of comparable

quality. Graduate students in vocational education will never be as intelligent as those in medicine. Graduate programs in vocational education will never be able to do what those of medicine do. Or could they?

When examining graduate programs in physics, it soon becomes evident that the student does not build his own physics laboratory. The accelerator for particle physics, the supplies, the equipment, the materials, and the technical support are all provided by the institution. All the individual student does is pay tuition and bring a good mind to the program. In comparing this situation to that of vocational education, it is interesting to consider what the vocational student might need. Is everything a student requires for conducting a dissertation in vocational education available to him without cost? Have the staffs at any institutions providing graduate programs reviewed the last 20 dissertations done at their institution and tried to decide what would have been necessary to do them right? Have the institutions purchased the materials and equipment needed so that the next 20 research efforts will not be constrained by what the student can afford? (If the physics student had to invent or purchase his own equipment, there would not be very good research in physics.)

The same situation is existant with respect to agriculture. Graduate students do not have to buy or rent farms to conduct their research. They have access to experiment stations and the lands owned by individual farmers who have made them available for research purposes. However, the schools of agriculture make all of the necessary arrangements. As in the case of graduate programs in medicine and physics, the type of research and inquiry conducted is not limited by what the student can afford. Are such opportunities available to graduate students in vocational education? It is quite unlikely that the equivalent of an experiment station, a particle accelerator, or a teaching hospital exists within the field.

* * *

What is the mission of graduate programs in vocational education? It is not unreasonable to assume that it includes research, leadership, and service. But, it is research that is the essence of a graduate program. Naturally, there are a number of institutional arrangements that have been established and used to accomplish specific goals within the field, but there is an absolute dependence on the graduate school to understand the unknown and to invent the non-existant.

Having examined the mission statements of several graduate programs in vocational education, there seems to be a balanced emphasis on leadership and service as well as research. The question might be posed as to whether or not this is desirable or possible. Is there enough money to do everything which is noted in the mission statement? If not, then it would seem most feasible to emphasize that aspect of the mission at which the individual institution would excell. If the decision is to specialize in research, then it should be done well while developing only that leadership necessary to enable the institution to continue receiving appropriations for such studies. If the intent is to provide the best possible service, then do that - but do not try to invent new knowledge.

Continuing along the same lines, there should be some concern that vocational education may be trying to over-extend itself. A list of programs offered within the various institutions included the following:

agricultural education, business education, distributive education, health occupations education, technical education, adult education, vocational administration, extention education, vocational rehabilitation, coordination, supervision, and others. Vocational education programs have also appeared as occupational education and career education. Therefore, when a person attempts to describe the field to another, it is difficult to get to the bottom of the list of those things with which graduate programs in vocational education concern themselves. As a consequence, the parameters of the field become so fuzzy that it is difficult to make any clear distinctions; it becomes difficult to determine what vocational education really is. Are there no limits? Does all of this previously mentioned "territory" belong to vocational education? Such questions remain to be answered.

In terms of the administrative organization of graduate programs, it would appear that those with chairpersons who report directly to a dean are positioned reasonably well administratively. What about those programs which do not have such an internal administrative placement? Is it not likely that such programs will lose "campus battles" due to the lack of a decent administrative position? Is it possible to provide a quality graduate program without such placement? If not, maybe such programs should not exist because they will generally lose when the competition for support becomes tough.

The facilities are another element of the graduate program perceived to be a very important dimension of quality. But, the question arises as to whether the available facilities are for instruction or for inquiry. Is there a distinction between the two? Is there some way to determine this difference? Certainly computer facilities would be essential for conducting inquiry. But, where are the farms and factories which can be used for research? Where are the offices needed for inquiry by business education programs; where are the homes required for inquiry by home economics programs; and where are the hospitals that should be linked to graduate programs so that inquiry can be conducted in the health occupations? Where are the classrooms which are needed to design vocational education? Where are test procedures and materials to be developed? Where is the laboratory for inquiry? After examining several graduate programs, it became evident that it is quite difficult to distinguish between the facilities for instruction and those for inquiry.

Within another context, it is essential that any graduate program have linkages with the institutions of practice in the field. The clients of graduate programs in vocational education are those schools which attempt to vocationally educate individuals for employment in the work place. It is the graduate program which serves as the place and means to invent the future for such institutions: the high schools, the community colleges, the undergraduate schools, and the area vocational schools. But, where are the linkages with these institutions? Too often, there is no networking arrangement with the graduate program. Although there are evaluation studies and consultation services provided, there is evidently no systematic pattern of linkages. Graduate programs are generally not so irresistably attractive that other institutions are seeking them out to purchase the products of their inventiveness and inquiry. Where are the institutions which are willing to pay for what the graduate program has to offer? Where are those who would subscribe for services at the rate of $10,000 a year (or some other respectable price) as an admission ticket to the fountains of new knowledge, new procedures and new materials that these programs are creating? It would be impressive if local schools paid for the services. It would be an indicant of the value and perceptions attached to the inventions and knowledge created within those programs.

State departments should also be subscribing and paying for that which is available. Elementary schools should do the same for that which they might find useful. However, it is not only for services that these linkages should be established; they should also be developed for purposes of research and development, for internships, and for connecting to the frontiers of new demands in vocational education. For instance: How are the efforts within graduate programs linked to the work of the Civil Rights Commission? How are the implications of Title IX infused into the program's activities? What efforts are expended in terms of the concerns of minorities? How have students and professors within the program been linked to the needs of the handicapped? How many Ph.D. candidates have read recent national legislation which has been enacted and is either directly or indirectly related to the field of vocational education? How many students or staff members have read the most recent federal regulations specific to various pieces of legislation? How many legislators have been invited to explain why they wrote a bill, why they voted for it, and/or what they think a piece of legislation is supposed to accomplish? To what extent are students brought into contact with those institutions which house special populations requiring vocational education - prisons, hospitals, and the military? By establishing such linkages, the graduate student has the opportunity to examine the motives behind the new demands for vocational education.

Hopefully, graduate programs will involve much more than just books and lectures. They should provide a balanced and coherent offering of organized courses and experiences which will contribute to strong majors and substantial minors. As such, courses must be logically sequenced because a random set of courses taken by the student in a random order does not constitute either a well planned major or minor. There must be some intellectual theme or set of related skills to be developed that serves as the basis for the graduate program. This being the case, there are probably several questions which should be considered: Who actually develops the plan of study for the student - the professor, the student, or both? Is the individual's program actually tailored to the his/her career goals?

In terms of professional inquiry, there are several other aspects of the graduate program to be analyzed. What program areas within the entire graduate school at each institution offer specialized courses in research methods? Does every department provide such learning experiences just for their own students? Or, are these courses deemed important enough to offer them to all students across all departments? Do the best methodologists teach the methodology courses to all students? Does every individual institution have an organized sequence of learning experiences to prepare students for inquiry or is every department within each graduate school expected to provide it for themselves?

It is also important to examine the incentives for students who have the capability to undertake various forms of inquiry. Are they given credit for their work and the assistance they provide to other professional staff? Do they receive the rewards of inquiry? They certainly should if they are helping to invent new knowledge.

Specific to program evaluation mechanisms, there are many techniques which might be employed. For instance, advisory committees, visiting committees, consultants, and campus committees could all be used in one way or another to assess program effectiveness and quality. However, self-evaluation may be a critical component of the total effort. The systematic collection of data by program staff for the purpose of making judgments about program impact can be very useful. There may be evidence

of graduate success, graduate student complaints, graduate students suggestions, employers' complaints and suggestions, and a variety of other data. A good example of this was available in the application to this conference which was submitted by the University of Missouri. In this particular instance, the program staff has generated a list of questions to address when conducting a program review. Although the application did not indicate if such an assessment was completed on an annual basis, the questions appear to be logical and will serve very effectively as a focus of attention when collecting data and analyzing programmatic efforts. (See Addendum D.)

Another crucial element of the graduate program is the composition of the faculty. Even though such data is not readily available, it would be interesting to know if 20 percent of the faculty for a given graduate program were trained at an institution of lesser quality. Has 40 percent of the staff received their graduate education at an institution of comparable quality? Did the remaining 40 percent come from programs of higher quality? This is where they should be coming from. An institution attempting to improve its graduate program should be seeking to attract new staff members from institutions better than themselves.

Other questions which indicate critical dimensions of faculty composition include the following: To what extent is there an even distribution of ages among members of the professorial staff for a given graduate program? How many of the faculty members can supervise doctoral study? What percent of the faculty can chair doctoral committees? What percent of the faculty can be members of a doctoral committee? Is it necessary that all faculty members be able to serve on committees? How many students should individual staff members be advising at any one time? How many staff members are personally engaged in a dissertation-type study of their own? How many research and teaching assistants are accessible as professional support to the faculty?

In this latter instance, the organizational arrangement to support inquiry by the faculty becomes a critical dimension. The strength and quality of a graduate program may be significantly enhanced by the existance of a bureau of research or a center for development. This strength and quality may also be a function of the amount of staff release time available for research. Are faculty loads reduced so that staff members can conduct research? Is there continuing inservice training of the faculty to assist them in their inquiry? Is there a research and development coordinator within the department?

More importantly, is joint research being done with other departments? One indication of aggressive inquiry is to study something so complicated that the staff of the graduate faculty within any one department needs professional assistance from others. It may actually require that social psychologists, political scientists, demographers, and various other professionals be involved in the more meaningful research efforts.

Finally, a critical analysis of graduate programs in vocational education must eventually focus on the quality of the students entering the programs. What type of credentials do they have in terms of grade-point averages (GPAs) and scores on the Graduate Record Examination? Are they considered to be among the top 25 percent of the students within their respective Schools of Education? Are they in the top 33 percent of the university graduate students in terms of their undergraduate

GPAs and their Graduate Record Exams? If not, why not? If not, how far down are they? Shouldn't graduate students in vocational education be as good as those in other programs?

Since the faculty associated with most programs are proud of the amount and types of courses their graduate students take in other departments, it would be interesting to know if the students were enrolled in the regular courses of those departments of whether special service courses were being offered. Are the graduate students in vocational education able to cope with the rigor of regular application courses where the knowledge from another discipline is applied to the vocational setting in some way? Or, are they encouraged to enroll in a simplified service course because the other would be too difficult? Whatever the case, enrollments in courses outside the vocational education department will be an indicator of the quality of the graduate students.

Furthermore, once the students have completed their graduate programs, the extent to which career lines have been broken will also be an indicator of program quality. The graduate school should be serving as a "roundhouse" with students coming in on "one track" and leaving on another. They should not be going back to their old job or one equivalent to it. Once they have been given the treatment, they should be moving in a different direction professionally.

It is the programs which are breaking career lines which deserve to be classified as graduate education. Career lines which have remained straight or have only been slightly bent represent inservice training. If this seems too harsh, think about those persons trained in other graduate programs. How many persons were lawyers before they entered law school? How many persons were agronomists before they received their doctorates? How many individuals were doctors before they attended medical school? None of them!

If graduate programs are breaking the career lines of their students, then they are engaging in graduate education. They should be enrolling practitioners and graduating scholars and leaders. This will be the measure of success for the program. To crudely estimate their program effectiveness, each institution at this conference should examine their own programs in terms of the following questions. How many leaders are being placed in vocational schools? How many new procedures developed in the graduate program are being infused into vocational schools? How many materials developed within the program are being used by the high schools, vocational schools, and community colleges? To what extent is the state department being significantly impacted by the graduate education department in vocational education?

Vocational Education Graduate Programs: Building on the Merits

by

Norman N. Durham[1]

The comparative study of civilizations would never have been undertaken if some thinkers had not recognized that they themselves were living in the midst of a civilization which was, after all, only one among many. Such realizations prompted extensive studies of American civilization and its many contributions. An academic area described as vocational education lies mired in the mass of educational subjects. Does it occupy a comparable position to that of other educational subjects? If there is such a discipline as vocational education - what is it like? How does it compare with other areas of education? Is it better? Does it demonstrate quality? Who are the people that believe in it? What role or position does it occupy within the common maze of education? Society will soon dictate the thesis that it is time that we objectively seek those areas with potential and "put the others to bed."

Education, as we dwell within its hallowed halls today, has become the object of widespread skepticism and we can blame no one but ourselves for this albatross around our necks. More frequently, questions are being asked as to whether benefits of education are not outweighed by its cost and burdens. Whatever the nature of the skepticism, whether justified or unfair, it constitutes a clear danger and extends a challenge to the academic community to set about regaining the public's confidence as rapidly as possible.

While we may vigorously argue against this skepticism, it may be well that we start with the rather candid admission that during the great period of expansion our academic community did acquire some rather unattractive faults, and despite all of our great achievements--did become somewhat arrogant and pretentious, lax in our intellectual standards, and perhaps even insensitive to the needs of individual students. It is also possible that we have perceived and measured success more in terms of enrollment, number of students in the programs, number of students graduated, construction of new buildings, and continued expansion of function--than in the enhancement of academic quality.

Despite many faults, higher education has made many pronounced contributions to mankind and these have affected virtually every aspect of the nation's welfare. For example, one of the socio-economic functions in which the university participates, and which is rapidly gaining in significance, is the provision of programs for adults, primarily through part-time study, for the purposes of intellectual stimulation,

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[1]Dr. Durham is the Dean of the Graduate College at Oklahoma State University - Stillwater, Oklahoma.

career advancement and personal growth. At the same time, we need to strongly emphasize quality and provide generously to those departments that are efficient in delivering programs supported by a strong instruction and research base.

It is essential that we do not prepare graduates who lack the breadth and flexibility of mind that will be required for intelligent decision making in the rapid changing world. The most important task ahead for the academic community will be to cut cost--while at the same time improving quality. The breadth and flexibility essential to decision making can best be achieved through quality and an interdisciplinary program concept. Interdisciplinary programs not only contribute to the faculty of the individual disciplines, but the candidates benefit from the opportunity to become acquainted with the language of other disciplines.

The projection into the future may also emphasize that research and graduate education in universities are closely related and interdependent activities. However, there now seems to be reason to accentuate their differences, and to consider them somewhat more separately than in the past. This has resulted from an increasing realization that the needs of the country for university-based research are not simply proportional to the number of graduate students in different fields but are instead based on the actual needs of the country for research.

The demand for the traditional graduate education will certainly be affected by the job situation and by the types of programs that are provided. Therefore, there will be many opportunities for the development of graduate programs to better serve the needs of people later in their career, to facilitate the transition of individuals into new career fields, or to enable individuals to function within their current field in a new way. Also, at the doctoral level, the number of graduate students will be affected by the availability of different types of financial support and by the needs of the country for people with advanced education and experience in research. Unfortunately, we are not wise enough to be able to see these future changes very accurately, but changes in the demand for graduates are expected to have a very significant effect on the demand for education graduates in many fields. Thus, it is critical that quality educational programs prepare the graduate to readily compete in the open market, to be qualified to compete in a number of different areas, and to be productive and responsible.

In the opening statement, it was emphasized that the comparative study of civilizations would never have been undertaken if some thinkers had not recognized that they themselves were living in the midst of a civilization which was, after all, only one among many. Vocational education has long been affiliated with rather specific areas of the university community and has done a very satisfactory job while at the same time letting others receive the glory associated with good educational programs.

This may well be the time in which thinkers should begin to recognize that while vocational education is one among many--it is a very important and prominent one. Machiavelli once said, "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success--than to take the lead in the introduction of a new order of things". But, vocational education will not achieve recognition as a discipline by simply following the prevailing paths that have been trod by others for all these years. Neither will recognition be achieved by failing to recognize the benefits derived from research or interdisciplinary programs, or by adhering to the same criteria presently used in academic communities for evaluation of quality, or by pouring forth verbose terminology which often accomplishes

little but hides a great deal. The way to establish a respectable discipline is on the base of quality--research and instruction. The merit for vocational education is the potential for contributions; but to attain disciplinary recognition, an acceptable, marketable product must be presented and "sold in the market place." When one critically analyzes and participates in decision making relative to graduate programs, there must be defined goals and objectives; any program designed for an individual is irrelevant if the individual has no purpose.

Research is extremely important and the preparation of individuals to contribute to scholarly and creative programs of the discipline will help achieve disciplinary status if this is what is really desired. Research and scholarship are the base for information used in teaching. Recognition will come by adequately preparing individuals to handle all functions of professional education.

When one analyzes, evaluates and makes decisions, it is anticipated that the quality of a program will improve. However, quality is not easy to achieve because quality programs are not designed for everyone. It is extremely important that we assume the responsibility for quality in our offerings; at the present time, "higher education for all" basically means education for none. Quality is "a very tough horse to ride." The majority of our colleagues will not be strong supporters of quality assessment because they are apprehensive and uncertain of themselves; no one likes to be evaluated. It will also be necessary to develop the understanding that educational opportunities within different institutions are not and should not be identical. Duplication is very costly.

There will be some institutions which have excellent programs because their faculty and instructors display great expertise. Professional development in these institutions will be demanding, informative, exciting and scholarly. These institutions will operate according to the following dictum: "If the prospective graduate students desire quality, they should enroll at our institution; if they just want credit, they should go elsewhere." The amazing thing is that most people really want substance in their academic programs and will seek out those institutions that provide it.

As noted earlier, quality is based on scholarship and creativity rather than numbers. But, research must also be a part of this base; for without research there would be nothing to teach. Individuals not actively pursuing research interests soon find themselves at a loss for understanding and interpreting new learning concepts and ideas. In such cases, the students suffer, and these same students then become critics.

Assessments and ratings of graduate programs have been conducted in the past, and there is every indication that evaluations will be forthcoming in the near future. Without a doubt, all institutions will be reviewed in some form or another. In 1966, Carter published an assessment of quality in graduate programs; in 1970, the Roose-Andersen Study presented a rating of graduate programs based on a peer review. Both studies ranked each program on only two dimensions and viewed these from a single perspective. While one may be critical of the process and note certain shortcomings of these efforts (i.e., peers may not have had access to information on teaching quality and/or research quality), the two reports were readily accepted as reasonably accurate and have been used by granting agencies for purposes of funding and by students for selecting universities in which to study.

Earlier, a recent study funded through the Council of Graduate Schools (COGS) was discussed. The Oklahoma State University was one of

the participants in this study and there were some interesting observations that should be noted:

(1) The peer evaluation of the faculties at our institution - by department - and the self-evaluation made by the departmental faculties were nearly identical in terms of results. The departmental faculty perceiving themselves as outstanding were so rated by their peers; the deparmental faculty that felt they were not outstanding received a similar rating from their peers.

(2) Students are interested in the learning environment and scholarship. They are willing to learn. (Maybe, we, as professors, underrate the capability of graduate students and their desire to be exposed to new knowledge. Maybe, on the other hand, the capability to offer any new knowledge has been exceeded. Unfortunately, our profession on occasion does encourage individuals to relax and take it easy. Tenure, it may be recalled, was designed to permit faculty to present controversial ideas without literally being beheaded. At the present time, there are more faculty than it is desirable to admit that reside under the guideline of tenure but who have not had a controversial idea in years. It would be very exciting if one of them did have such an idea.)

Education has been defined as the "intercalation of the incomprehensible into the ignorant by the incapable." This might suggest that we need to communicate in more understandable terms with our publics and that we need to undergo the intensive and painful experience of change. The power of ideas is extraordinary; it only takes the ideas of a few individuals to change the course of history. We could be the leaders in this change - leaders in the development of a newly recognized discipline. Perhaps, we can actually plan education for the future. Too often, we react to the past or a problem of the immediate; as a result, it is little wonder that education blunders along. Not only breadth, but concentration in educational experiences and preparations should be provided; the graduate program should be intellectually demanding. We need to be aware of individual differences; when everybody is a winner--everybody is a loser. Anytime that everyone is treated equally, mediocrity is encouraged by failing to recognize individual initiative and ability.

It is important that vocational education assume the leadership role for quality educational programs based on solid research and scholarly effort. In no other discipline is research - good research - so badly needed as it is in the area of education. Recognizing and assuming the responsibility of a leadership role in providing quality educational programs is the key for critical analyses, decision making, and the recognition of vocational education as a discipline which not only competes with, but could surpass, other disciplines presently associated with education.

Which trail will we trod? Will we pursue the course that education continues to follow--or will we "hurdle the rut" and move in a new direction? Our future will be followed with great interest.

Quality Programs for the Future

by

Carl J. Dolce[1]

The concern about the quality of graduate programs is one which transcends vocational education and the field of professional education. Moreover, the concept of quality is an illusive and ill-defined concept. To some people, a Ford automobile is a quality product; to others a Rolls-Royce epitomizes quality. To the latter group, a Ford is something of low quality which is produced for mass consumption. For some individuals, the works of Beethoven represent quality; to others these works are "for the birds" and country western music is perceived as "the thing." In the way the term seems to be commonly used, "quality" is that which is "in the eye of the beholder."

However, quality is a set of characteristics which is different from that of beauty. Our society actually distinguishes between the two. For example, the concept of quality control is common in industry and even in federally funded research and development projects. Quality control, as used in these cases, implies a set of standards and specifications which exist apart from and which transcend the particular process itself.

Considerations of quality involve deliberations about an end-product or a resulting set of conditions. They focus on specified characteristics and standards upon which judgments can be based. In some cases, the matter of determining quality is a relatively simple one. For instance, the quality of a recording is a function of the degree of congruence between the sound on the recording and the original sound. The end-product is sound, and the specifications are established in terms of pitch and tone. However, in professional development, we have no clear "original sound;" we have no widely agreed upon specifications; and we have no clearly defined standards.

It frequently appears that the widespread differences of opinion regarding quality in graduate programs are differences about the process of graduate education. However, it may be that judgments about qualitative dimensions of graduate education differ not only because of conflicting views about process but, more fundamentally, because of dissimilar beliefs about the qualitative characteristics of the end-product itself - that is, the quality of performance required to be effective in practice. For some, the specifications of professional performance in the field are loose, and whatever standards exist are relatively low.

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[1]Dr. Dolce is the Dean of the School of Education at North Carolina State University - Raleigh, North Carolina.

In the case of others, the specifications are tight, and the standards of judgment are often implicit. Therefore, the disagreements about quality tend to be expressed in terms of the process rather than the end-product even though the specifications of the end-product are the real area of contention. When this occurs, it is extremely difficult to direct sufficient attention to the real rather than the apparent issues.

Since professional graduate programs are the means to higher ends, initial attention should be focused on the end-product - that is, the desired characteristics to be manifested in graduates and the standards of judgment to be used. This is not an easy undertaking. Because education is concerned with complex human beings, all of the characteristics cannot be identified and all of the dimensions of quality cannot be quantified. This is not to say, as some erroneously believe, that there are no quantifiable elements. Rather, it is meant that the sum of the quantitative elements will not yield a total quality dimension.

The essential first step in consideration of the quality of graduate programs is the determination of the specifications of the end-product, i.e., the characteristics to be expected of those who satisfactorily complete the program. Of necessity, the specifications will be quite general in some aspects and more definitive in others. It is important to avoid the primitive reliance upon attempts to specify the totality of a professional with exclusive use of performance criteria which are quantitative in nature. Furthermore, the frame of reference should be made explicit. What is the ultimate basis of specification delineation? Is the basis an abstract model of what graduate education is envisioned to be? Or, is the basis rooted in the real world of practice? Perhaps the ultimate basis should be the welfare of students to be served in the public schools, community colleges, technical institutes or other educational institutions. Hence, it is not conceptually difficult to make "hard" judgments about the quality of university students, faculty, or administrators. In this frame of reference, the university is a mechanism to improve the quality of life for the larger set of the population.

The level of the expectations held is reflected in the standards of judgment used in evaluating the quality of the end-product characteristics which have been specified. Some persons are content to allow the status quo to be the determinant of the level of expectations; therefore, a graduate who displays characteristics which approximate those displayed by individuals currently in the field of practice is judged to be satisfactory. This is what can be termed the "status quo" vantage point. Those who gear their level of expectations to the status quo are dominated by considerations of "what is," and they will tend to reinforce "what is." Others base their levels of expectations on the consideration of "what ought to be." They envision a set of future conditions different from the status quo. Judgments are then based upon the degree to which the discrepancy between the present and the desired future is narrowed. Since it is most desirable that the ultimate clients to be served should constitute the basis of the framework for end-product specification, it is not unreasonable to assume that presently there is considerable discrepancy between the existant conditions and the desired set of conditions for the future.

The elements of end-product specification are difficult to isolate. One starting point is the listing of characteristics usually ascribed to a "profession." These characteristics include: (1) the ideal and performance of service to others, (2) specialized knowledge which is not shared by those who have not been professionally trained, and (3) a code of ethics. To this list, a fourth characteristic should be added -

the specialized ability to act and to practice. As such, these four characteristics can provide a starting point for end-product specification. If accepted, subsidiary questions can then be raised: What should be our ideal of service? What should be our standards of performance? What specialized knowledge is essential? What should our code of ethics be? What should be the mechanisms of enforcement?

Although end-product specification can provide a set of criteria on which to partially base qualitative judgments, the current state of the art precludes exclusive reliance upon such specification. Therefore, it is still necessary to depend, in part, on the determination of quality in terms of the graduate education process. Still, it is essential to realize that a focus on process is, at best, a proxy for attending to outcomes. And, even though there will continue to be a focus on process, efforts should not be reduced to define and to specify outcomes. However, even if adequately defined and sufficiently specified outcomes were available, attention to process would still be essential in order to determine the most effective and efficient means of achieving those outcomes.

DIMENSIONS OF QUALITY

There are common criteria utilized in making judgments about the quality of the process of graduate education. The first criterion (dimension) is a stated set of objectives which actually provides direction to the graduate program itself. But, objectives are meaningful only when they preclude certain types of activities and encourage others. Any set of objectives which does not limit or preclude certain activities is operationally meaningless and useless. Most likely, much of the resistance to the development of meaningful objectives is stimulated by fears of circumscription of possible future activities. Yet, without circumscribed actions, there is little probability of purposeful, future-oriented activity.

A second dimension is the quality of students admitted to graduate programs. The characteristics of students admitted and the trend direction of those characteristics are indices of the basic assumptions of a program. If there is little emphasis upon intellectual development in the admissions process, then the assumptions made by the admissions committee seem to be:

a. the job of a professional in vocational education is not very complex and does not require a high degree of intellectual development, or

b. the program is most efficient and can develop the desired characteristics in almost anyone.

It should be noted that judgments made about the quality of students admitted to graduate programs reflect considerations about both the end-product and the process. Similar statements can be made about other characteristics which are of basic importance: integrity, dedication to the field of vocational education, respect for the dignity of each individual and a strong drive toward achievement.

Criteria utilized in the admissions process should be related directly to the stated objectives and the end-product specifications which have been developed. Criteria specific to the admissions process might be developed for the areas of recruitment, retention, and placement. Still, the mere establishment of criteria is irrelevant without sufficiently

high standards; it is evident that "low screening" at the point of admissions, when coupled with a high retention rate, is a consistent index of a low-quality graduate program.

A third dimension of the successful graduate program is the quality of the faculty. Considerations of faculty characteristics are also reflective of views about both the end-product and the process. A preoccupation with the status quo will result in a faculty with one set of characteristics whereas an emphasis on a desired future will result in a faculty identifiable by another set. Some of the basic faculty traits which should be exhibited are: intelligence, integrity, teaching and researching capabilities, dedication to the field of vocational education, and a real-world orientation. It is interesting to note the similarities between this partial specification of faculty traits and the previously mentioned list of student admissions characteristics. It may be that a faculty tends to attract "its own kind." Nevertheless, the faculty is the key to the quality of a graduate program; it is the faculty which has the greatest influence upon objectives, student admission and retention, and end-product specification.

In a complex field such as vocational education, all of the relevant variables have not been identified; all of the knowledge and insights have not been made explicit; and rationality is severely limited. Therefore, much of professional preparation must rely upon the modeling effect as well as upon formal instruction. In this context, faculty characteristics assume an even more important dimension. Assimilation of insights by students from faculty behavior in teaching, research, and practice is essential to the development of an intuitive base for future action.

Universities have also traditionally performed an additional imperative function, i.e., the generation of new knowledge and insights. Consequently, university-based programs have a responsibility for research, development and dissemination as well as for professional preparation. Contrary to some views, research and teaching are not at opposite ends of a continuum. In reality, research and teaching are opposite sides of the same coin, and both are essential to the modeling process when fulfilling one of the historic functions of a university.

A fourth dimension is the quality of the graduate program itself. In actuality, we have few programs in education. Rather, we have an aggregate of courses which may or may not be interrelated. Too seldom, the following questions are asked: "Given a set of objectives, why are such courses offered?" "How are the courses related to each other?" "Does the composite of courses yield an integrated whole?" "Can all professional preparation be accomplished by means of formal course work?" The assumption at most institutions appears to be that whatever integration is to take place must do so within the student rather than within the program. More than likely, the primary reason for an absence of program integration is the hope that students can achieve what teacher educators, individually and collectively, have failed to achieve.

There has also been too little thought given to the differences among programs designed to prepare professionals in such fields as physics, history, or economics on the one hand, and programs designed to prepare professionals in fields of practice such as vocational education. It is possible that although there is marked congruence among these types of programs, there are also marked differences. Common to all types of programs are the formal interactions among faculty and students in class settings; but, probably more importantly, there should be informal interactions among faculty and students along substantive lines in practice settings or in project work. Such informal interactions would tend to facilitate modeling and foster the transmission of essential intuitive knowledge.

The implicit and unspoken attitudes of program staff are also factors in program impact. Is there a belief that the faculty knows all of the answers and that their job is to give these answers to students? Do they view the university as the source of all wisdom and the field of practice as the source of all mistakes? If the answers to these questions are in the affirmative, then the program will tend to be dogmatic and oriented toward technician-like training. If, on the other hand, there is a view that the current state of knowledge and the current state of the art are limited, the resulting program will perceive a need for the exercise of professional judgment, for stimulating students to be aware of alternatives, to project consequences and to be able to choose, implement, and evaluate alternatives. A program which emphasizes alternatives also places emphasis upon library resources, computer capabilities, and the other support mechanisms needed to explore existing alternatives and the fashioning of new alternatives.

The fifth dimension of a quality program involves the feedback mechanisms which are used for evaluative purposes. Systematic use of informative feedback will continue to center attention on objectives and provide a basis for correction of ineffective or inefficient means.

Finally, having identified the five programmatic dimensions above, it is important to note that they do not comprise the totality of quality considerations. The existence of high qualitative levels in all five of these dimensions will not necessarily produce a quality program. One additional essential ingredient is the "climate" of a program. Although it is a somewhat intangible variable, institutions and programs do appear to have climates. This concept of climate seems to be a gestalt - a dimension resulting from the interactions among the other dimensions. Without the gestalt, the other dimensions seem to lack both potency and effectiveness.

It is this absence of interaction among the dimensions and the lack of an appropriate environment for modeling - in short, the absence of an effective climate - that is characteristic of off-campus instruction conducted by itinerant faculty without adequate support mechanisms. These deficiencies raise serious questions about the qualitative characteristics of such off-campus programs.

In summary, even though there are possibly other dimensions which remain to be identified, one assertion can be made with a high degree of certainty. Quality in any domain has never resulted from mass production, haphazard actions, a low sense of expectancy, or a faculty which itself does not possess the characteristics implied by the dimensions discussed earlier. Despite these observations, the basic question about quality still remains - "What is it?"

Summary of Observations and Discussions of Workshop Participants

The group leaders for the small-group discussions included Dr. Sylvia Tucker, Oregon State University; Dr. Donald Clark, Texas A&M University; Dr. Carl Schaefer, Rutgers University; and Dr. Lloyd Briggs, Oklahoma State University.

These individuals were asked to comment, from their perspective as group facilitators, about the topics or tasks of this workshop that were to be considered "unfinished" and, therefore, possible foci of attention for the future. They were also asked to suggest the kinds of activities which could be done more effectively by a collective group (of institutions), rather than individually, to improve graduate programs in vocational education. The following list is a summary of the topics highlighted by the four group leaders.

Tasks that remain unfinished:

...sharing the substance of the workshop with other faculty members, state department staffs, accrediting agencies, and U.S. Office of Education personnel.

...outlining a plan of action to implement the recommendations resulting from the workshop.

...extending the substantive merits of this workshop to alternative-futures planning.

...continuing with similar group discussions at various times in the future. (This would afford participants time to reflect on the issues discussed.)

...studying each of the workshop topics in more depth.

...continuing the cooperation and sharing of ideas between institutions which was initiated by this workshop.

...developing more definitive standards and guidelines for graduate vocational programs.

...identifying the availability and utilization of various types of resources for enhancing graduate programs in vocational education.

...identifying the desired product of graduate programs more explicitly.

...implementing, within the individual institutions, some of the consensual ideas agreed upon at this workshop.

The group leaders generally agreed that each of the following activities would be enhanced by the collective action of institutions.

These include:

...formulating guidelines for graduate education programs.

...utilizing the "think-tank" process whereby ideas stimulate ideas.

...attempting to arrive at consensus on topics and issues as a means of reinforcement and support of graduate programs.

...planning and organizing a consortia of all institutions with graduate programs in vocational education. (This consortia would emphasize the sharing of ideas between programs rather than competition.)

...initiating program improvement that will raise the level of respectability of graduate programs in vocational education at the respective institutions, within the Council of Graduate Schools, and among members of the lay public.

...discussing the nature of critical mass in terms of students, faculties, and institutions.

...identifying critical issues and possible solutions to problems.

...organizing institutions for the purpose of more effectively impacting legislation related to vocational teacher education.

...studying the qualitative aspects of graduate vocational education.

COMMENTS OF RECORDERS

The recorders for the small-group discussions included Dr. Robert Andreyka, Pennsylvania State University; Dr. Dewey Adams, The Ohio State University; Dr. Marian Asche, Virginia Polytechnic Institute and State University; and Dr. Melvin Miller, University of Tennessee.

The recorders were asked to comment on those topics of discussion within the group sessions where agreement was reached by workshop participants; they were also asked to note those subjects about which agreement was not reached. The following is a summarized version of all four presentations.

Points of agreement concerned:

...the dimensions of program quality outlined by the speakers at the workshop. Participants believed that, in juding program quality, special significance should be attached to the dimensions of program leadership, quality of faculty, faculty promotions, developmental programs for faculty members, university commitment to and interest in the graduate program in vocational education, quality of students in the program, nature of program climate, spirit of inquiry and openness, and the general spirit of commitment to the profession.

...the basic ingredients of graduate programs in vocational education: research, leadership development, and service. It was agreed that more attention should be given to the generation of new knowledge as an integral part of the program mission.

...the need to study the external influences on graduate vocational education. (This would include assessment of state department influence and federal funding patterns as they relate to autonomy within institutions.)

...the status of graduate vocational education as a part of the mission of the university. It was decided the status could be assessed in terms of resources allocated, inclusion of vocational education faculty on key university committees, the visibility afforded the program, faculty presence in long-range planning activities of the university, and the administrative position of the program (department) within the university.

...the many program dimensions which should be studied and improved. These dimensions include program standards, program outlines at the doctoral level, long-range planning, on-going evaluation, long-term institutional commitment to the program, and periodic program review.

...the need and desire for those institutions represented at this particular workshop to have representatives meet periodically to share ideas and collaborate on various aspects of program improvement.

...the need to study and define the nature of program comprehensiveness. Currently, comprehensiveness should be identified with a minimum number of specialized service areas which are staffed with the necessary faculty and provided with the appropriate resources to support them. In addition, various services and courses of supporting disciplines must be integrated within the total programmatic effort. Perhaps even a coordinated governance system would be desirable to mandate or motivate interaction between departments. Also, the comprehensive graduate program in vocational education must be supported by social, behavioral, and administrative science programs which provide learning experiences in the basic concepts needed by education leaders. Finally, a formal structure is needed to achieve effective coordination, planning and evaluation of the program.

Points of disagreement concerned:

...the role of faculty governance in graduate programs.

...the best administrative style appropriate for a graduate program and the effect of such style on the program.

...the best climate for learning within a graduate program.

...the effect of faculty selection on the climate within a graduate program.

...the necessary body of knowledge that every vocational education graduate program needs in order to produce the desired product.

...the meaning of advanced graduate training. (Is it to be viewed as an approach, a behavior, a way of thinking, or substance?)

...the nature and length of residence training.

...how to respond to various types of stimuli. (Is graduate vocational education externally directed or internally directed?)

...the nature of student involvement in university governance.

...what constitutes highly efficient or reasonable admission standards.

...what is the mission of the graduate program in vocational education.

...what should be the appropriate administrative arrangements for the program (department) within the university and within the college.

...what constitutes a quality program of graduate vocational education.

Workshop Evaluation

by

Billy N. Pope[1]

This workshop has afforded us a challenge. The main speakers have given us a great deal to think about; they have discussed points of reality that we may not really want to face or grapple with. The input during the group sessions was outstanding; the active participation of everyone in the discussions was indicative of the significance of the issues. In summary, it seems most appropriate to pose some questions for further consideration. These questions will focus on things which we need to deliberate carefully if we are to have successful graduate programs in the future. They are questions which must be examined if we are to have graduate programs characterized by quality.

During the first group session, questions were raised regarding the supply of and demand for program graduates. It appears that there is no over-production of individuals at the graduate level in vocational education - at least, no over-production of quality graduates. But, do we have accurate information concerning the needs of our clientele? Do we have a data base from which to plan graduate programs which will facilitate the professional development of individuals with a sense of inquiry, with the skills, and with the competencies required for positions of leadership? Do we provide necessary information to graduate students regarding career choices - not bends or breaks or in-service, but career choices? Do we discuss the opportunities available where help is desperately needed to implement quality vocational education programs? These opportunities may involve work as curriculum specialists, researchers, or training directors. They may be available within education systems, business, industry, or even the military.

During a recent conference at Fort Hood, the Dean for Overseas Studies at the American Technological University discussed a contract which had been negotiated for training all of the U.S. soldiers stationed in Europe and Korea. This project involves the provision of training leading to the GED, a high school education, a community college education, a baccalaureate degree, and a Master's Degree in Technology. Evidently, this is a fairly sizable contract requiring a great number of people to administer and supply the necessary instruction for the various programs. Arising from this situational context are several questions which we need to address. Do we develop graduates within our programs who can meet the professional needs of organizations such as the one noted above? Do we develop the leadership required at the state, regional, national, and international levels? Do we consider

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[1]Dr. Pope is the Coordinator of the Texas EPD Consortium D - Richardson, Texas

the opportunities available to properly trained vocational-technical personnel in underdeveloped countries? These nations have drastic needs. For instance, the oil producing nations are allocating six billion dollars to develop agriculture within the Sudan. To what extent will we help to provide the professional personnel necessary to develop the agricultural technology and management needed?

It was mentioned several times during the conference that vocational education is people oriented. There are questions which need to be raised regarding this contention. Is it really people oriented? To what extent is it oriented to the blacks, browns, native Americans, disadvantaged, handicapped, those with limited English-speaking ability, and women? Since these persons are not in attendance at this conference, it is essential that we give careful thought to these serious questions. We may need to work much harder if we are going to develop quality programs for all people - if we are really going to be people oriented.

Also, there was a great deal mentioned about the use of role models for training graduate students. Granted, everyone in attendance at this conference serves as a role model in their daily activities, but it is alarming to note that those persons typically perceived, during our discussion sessions, as role models represented the professorial ranks. What about other kinds of role models? Would it not also be wise to consider role models from the ranks of state department personnel, local administrators, or possibly even persons outside of education? There are a tremendous number of successful and competent individuals who could serve as legitimate role models. Perhaps we sometimes lose sight of the fact that potential role models do not necessarily maintain a professional residence on a university campus.

Another issue to be given due consideration concerns the types of learning experiences in which graduate students become involved. It is questionable whether or not the various graduate programs in vocational education provide the type of professional development required to function effectively within a given position. It is disconcerting that some of the necessary professional skills were not mentioned during our conference. Where does a person receive training in collective bargaining? What do graduate students learn about affirmative action? How many persons are trained to deal with a legal suit brought against them for discriminatory personnel practices? Do we make use of all the technology available to graduate programs? Are the present graduate programs a collection of experiences both within and outside the classroom? Or, is the program organized as a lecture series based on a set of notes that should have been discarded years ago?

Other questions which might be posed concern the reputation of our graduate programs. If less than desirable, how do we regain public confidence? How do we improve our public image? How do we improve the public image of vocational education? When was the last time employers of program graduates were contacted for the purpose of assessing the perceived effectiveness of our former students? When were these employers asked for their suggestions regarding possible program changes, modifications, and additions which would enhance the training of graduate students? This is a critical issue. We need to be much more concerned about those clientele who employ the graduates of our programs whether they are associated with institutions of higher education, community colleges, local education agencies, state departments, U.S.O.E., industry, or any other type of organization.

Several other comments made during the discussion sessions focused on the concept of individualized programs for graduate students. As an integral part of such a program, informal opportunities for professional

development must be encouraged. In most E.P.D. 552 programs, awardees have had many opportunities to engage in a number of informal activities. However, the E.P.D. 552 awardees represent only a small percent of the total number of students in graduate vocational education programs. Are similar opportunities available to those students who have not received fellowship awards? If such experiences are valuable for 552 awardees, are they not just as valuable for all graduate students?

In addition, conference presentations and discussions have dealt with the impact of the existing graduate programs. The question posed by Dr. Brickell was especially significant - "How many state departments have you changed recently?" Without a doubt, graduate vocational education programs should have an impact on state departments, regional offices, and federal agencies as well as the local agencies. Only by impacting the totality of vocational education can we be accountable to those who appropriate and allocate funding for our programs.

Finally, we must ask ourselves if quality graduate programs in vocational education are a myth or a reality. If not a reality, where do we go from here? What will be the criteria or indicators of quality graduate programs? Will efforts be expended to seek input from persons outside of vocational education? When engaging in program evaluation and planning, will we attempt to include graduate school deans, professionals from other disciplines, representatives from the state department, or any other individuals who may have an interest in graduate vocational education? Our efforts can not stop here. We, as a group, must move ahead as the "cutting edge" seeking a better future for graduate vocational education through the continuing development and refinement of quality programs.

ADDENDA

ADDENDUM A: GRADUATE SCHOOLS WITH GRADUATE PROGRAMS IN VOCATIONAL EDUCATION

INSTITUTIONS WITH MASTER'S DEGREE PROGRAMS

Andrews University
Berrien Springs, Michigan

U.S. Army Academy of Health Sciences
Fort Sam Houston, Texas

Brigham Young University
Provo, Utah

California State University, Long Beach
Long Beach, California

Central Washington State University
Ellensburg, Washington

Clemson University
Clemson, South Carolina

Eastern Washington State College
Cheney, Washington

Fort Hays Kansas State College
Hays, Kansas

Howard University
Washington, D.C.

Mankato State University
Mankato, Minnesota

Middle Tennessee State University
Murfreesboro, Tennessee

Morgan State College
Baltimore, Maryland

North Dakota State University
Fargo, North Dakota

Queens College of the City of New York
Flushing, New York

St. Cloud State University
St. Cloud, Minnesota

San Jose State University
San Jose, California

Appalachian State University
Boone, North Carolina

Bowling Green State University
Bowling Green, Ohio

California State University, Chico
Chico, California

Catholic University of America
Washington, D.C.

Chicago State University
Chicago, Illinois

Drake University
Des Moines, Iowa

Florida Technological University
Orlando, Florida

Framingham State College
Framingham, Massachusetts

Lamar University
Beaumont, Texas

Marshall University
Huntington, West Virginia

Montana State University
Bozeman, Montana

Murray State University
Murray, Kentucky

Old Dominion University
Norfolk, Virginia

Rhode Island College
Providence, Rhode Island

San Diego State University
San Diego, California

Shippensburg State College
Shippensburg, Pennsylvania

South Dakota State University
Brookings, South Dakota

Texas Southern University
Houston, Texas

Virginia Commonwealth University
Richmond, Virginia

Wagner College
Staten Island, New York

West Texas State University
Canyon, Texas

Western State College
Gunnison, Colorado

Wichita State University
Wichita, Kansas

University of Delaware
Newark, Delaware

University of Illinois at the Medical Center
Chicago, Illinois

University of Nebraska, Omaha
Omaha, Nebraska

The University of New Mexico
Albuquerque, New Mexico

University of San Francisco
San Francisco, California

The University of South Dakota
Vermillion, South Dakota

University of Toledo
Toledo, Ohio

Southern Univeristy
Baton Rouge, Louisiana

Tuskegee Institute
Tuskegee Institute, Alabama

Virginia State College
Petersburg, Virginia

Washington State University
Pullman, Washington

Western Illinois University
Macomb, Illinois

Western Washington State College
Bellingham, Washington

University of California, Davis
Davis, California

University of Hawaii
Honolulu, Hawaii

University of Missouri, St. Louis
St. Louis, Missouri

University of New Hampshire
Durham, New Hampshire

University of Rhode Island
Kingston, Rhode Island

University of South Carolina
Columbia, South Carolina

University of South Florida
Tampa, Florida

University of Vermont
Burlington, Vermont

INSTITUTIONS WITH MASTER'S AND SPECIALIST DEGREE PROGRAMS

Ball State University
Muncie, Indiana

Central Missouri State University
Warrensburg, Missouri

Central Michigan Univeristy
Mt. Pleasant, Michigan

Eastern Kentucky University
Richmond, Kentucky

Emporia Kansas State College
Emporia, Kansas

Northwestern State University
Natchitoches, Louisiana

Southern Illinois University
Edwardsville, Illinois

Western Michigan University
Kalamazoo, Michigan

University of Alabama in Birmingham
Birmingham, Alabama

University of Mississippi
University, Mississippi

University of Wisconsin, Stout
Menomonie, Wisconsin

Kansas State College, Pittsburg
Pittsburg, Kansas

Sam Houston State University
Huntsville, Texas

Western Kentucky University
Bowling Green, Kentucky

University of Alabama
University, Alabama

University of Louisville
Louisville, Kentucky

University of Southern Mississippi
Hattiesburg, Mississippi

INSTITUTIONS WITH MASTER'S AND DOCTORAL DEGREE PROGRAMS
(Ph.D. and/or Ed.D)

Auburn University*
Auburn, Alabama

Cornell University
Ithaca, New York

Florida State University*
Tallahassee, Florida

Indiana State University
Terre Haute, Indiana

Iowa State University
Ames, Iowa

Kent State University*
Kent, Ohio

Louisiana State University
Baton Rouge, Louisiana

Michigan State University*
Lansing, Michigan

New York University*
New York, New York

North Texas State University
Denton, Texas

Colorado State University
Fort Collins, Colorado

East Texas State University
Commerce, Texas

Georgia State University*
Atlanta, Georgia

Indiana University*
Bloomington, Indiana

Kansas State University
Manhattan, Kansas

Lehigh University
Bethlehem, Pennsylvania

Memphis State University*
Memphis, Tennessee

Mississippi State University*
Mississippi State, Mississippi

North Carolina State University
Raleigh, North Carolina

Nova University[1]
Fort Lauderdale, Florida

The Ohio State University
Columbus, Ohio

Oregon State University
Corvallis, Oregon

Purdue University*
West Lafayette, Indiana

Southern Illinois University
Carbondale, Illinois

Temple University*
Philadelphia, Pennsylvania

Texas Woman's University
Denton, Texas

Virginia Polytechnic Institute
and State University*
Blacksburg, Virginia

University of Arizona
Tucson, Arizona

University of California,
Los Angeles
Los Angeles, California

University of Connecticut*
Storrs, Connecticut

University of Georgia*
Athens, Georgia

University of Illinois*
Urbana, Illinois

University of Kentucky*
Lexington, Kentucky

University of Massachusetts
Amherst, Massachusetts

*These institutions indicated that they also grant the Specialist Degree

[1]This institution indicated that it grants only the doctoral degree (Ed.D.)

University of Minnesota*
Minneapolis, Minnesota

University of Nebraska, Lincoln
Lincoln, Nebraska

University of Rochester
Rochester, New York

University of Washington
Seattle, Washington

Oklahoma State University*
Stillwater, Oklahoma

The Pennsylvania State University
University Park, Pennsylvania

Rutgers University*
New Brunswick, New Jersey

State University of New York at Buffalo
Amherst, New York

Texas A & M University
College Station, Texas

Utah State University
Logan, Utah

Wayne State University*
Detroit, Michigan

University of Arkansas*
Fayetteville, Arkansas

University of Cincinnati
Cincinnati, Ohio

University of Florida*
Gainesville, Florida

University of Idaho
Moscow, Idaho

University of Iowa
Iowa City, Iowa

University of Maryland*
College Park, Maryland

The University of Michigan*
Ann Arbor, Michigan

University of Missouri*
Columbia, Missouri

University of North Dakota
Grand Forks, North Dakota

University of Tennessee*
Knoxville, Tennessee

University of Wisconsin, Madison
Madison, Wisconsin

University of Wyoming*
Laramie, Wyoming

ADDENDUM B: INSTITUTIONS PARTICIPATING IN WORKSHOP

University of Arkansas

Auburn University

Colorado State University

Florida State University

University of Georgia

University of Illinois

University of Kentucky

Louisiana State University

University of Maryland

Michigan State University

University of Minnesota

University of Missouri

North Carolina State University

Ohio State University

Oklahoma State University

Oregon State University

Pennsylvania State University

Rutgers University

Southern Illinois University

University of Tennessee

Texas A & M University

Virginia Polytechnic Institute
and State University

ADDENDUM C: WORKSHOP PARTICIPANT ROSTER

ARKANSAS, UNIVERSITY OF

Dr. Reba Davis, Associate Professor, Vocational Education

Dr. Lamar Love, Professor, Vocational Education

AUBURN UNIVERSITY

Dr. Harmon Fowler, Associate Professor, Education

Dr. E. L. Kurth, Professor, Education

COLORADO STATE UNIVERSITY

Dr. B. Harold Anderson, Professor and Department Head, Vocational Education

Dr. Duane L. Blake, Professor, Vocational Education

FLORIDA STATE UNIVERSITY

Dr. Robert L. Lathrop, Program Coordinator, Vocational Education

Dr. Dolores M. Robinson, Project Director EPD 552

GEORGIA, UNIVERSITY OF

Dr. George L. O'Kelley, Jr., Professor, Vocational Education

ILLINOIS, UNIVERSITY OF

Dr. Lloyd J. Phipps, Professor, Vocational Education

KENTUCKY, UNIVERSITY OF

Dr. Harold R. Binkley, Chairman, Vocational Education

Dr. Carl Lamar, Coordinator, Administration of Vocational Education

Dr. Michael Minor, Coordinator, Distributive Education

Dr. Clayton Omvig, Coordinator, Vocational Guidance and Disadvantaged

LOUISIANA STATE UNIVERSITY

Dr. J. C. Atherton, Professor, Agricultural Education

Dr. Barbara Holt, Assistant Professor, Home Economics Education

MARYLAND, UNIVERSITY OF

Dr. Charles Beatty, Associate Professor, Vocational Education

Dr. Joseph Lurtkemeyer, Professor, Vocational Education

MICHIGAN STATE UNIVERSITY

Dr. Robert Poland, Professor, Vocational Education

Dr. Rex Ray, Associate Professor, Vocational Education

MINNESOTA, UNIVERSITY OF

Dr. Marjorie Brown, Professor, Home Economics Education

Dr. Jerome Moss, Jr., Chairperson, Vocational & Technical Education

MISSOURI, UNIVERSITY OF

Dr. H. C. Kazanas, Professor, Vocational Education

NORTH CAROLINA STATE UNIVERSITY

Dr. J. R. Clary, Head, Occupational Education

Dr. John Coster, Coordinator, Occupational Education Programs

OHIO STATE UNIVERSITY

Dr. Dewey A. Adams, Professor and Chairperson, Comprehensive Advanced Vocational Education Programs

Dr. Aaron J. Miller, Professor and Chairperson, Vocational Education

OKLAHOMA STATE UNIVERSITY

Dr. Lloyd Briggs, Professor, Vocational Education

Dr. Don Phillips, Professor, Vocational Education

Dr. Lloyd Wiggins, Professor, Vocational Education

OREGON STATE UNIVERSITY

Dr. E. Wayne Courtney, Professor, Vocational Education

Dr. Joel D. Galloway, Professor, Vocational Education

PENNSYLVANIA STATE UNIVERSITY

Dr. Robert E. Andreyka, Associate Head, Occupational and Vocational Studies

Dr. Gene Love, Head, Agricultural Education

Dr. Twyla Shear, Professor-In-Charge, Doctoral Program, Vocational Education

RUTGERS UNIVERSITY

Dr. Charles C. Drawbaugh, Professor, Vocational Education

SOUTHERN ILLINOIS UNIVERSITY

Dr. Robert Hallissey, Associate Director, Office of Research

Dr. James Parker, Associate Professor, Education

Dr. Wayne Ramp, Director, EPDA Programs

TENNESSEE, UNIVERSITY OF

Dr. Garry Bice, Professor, Vocational Education

Dr. Roger Haskell, Professor, Vocational Education

Dr. Mel Logan, Professor, Vocational Education

Dr. Mel Miller, Professor, Vocational Education

Dr. E. Ray Smith, Professor, Vocational Education

Dr. John Todd, Professor, Vocational Education

Dr. Helen Watson, Associate Dean, Graduate Studies and Research, College of Education

TEXAS A & M UNIVERSITY

Dr. Frank W. R. Hubert, Dean, College of Education

Dr. Earl Knebel, Head, Agricultural Education

Dr. Floyd McKinney, Coordinator, Vocational Education Programs

Dr. James McNamara, Professor, Education

Dr. Richard Swinney, Assistant Professor, Vocational Education

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Dr. F. Marian Asche, Professor, Vocational Education

Dr. Curtis R. Finch, Professor, Vocational Education

Dr. Richard L. Lynch, Professor, Vocational Education

Dr. Samuel D. Morgan, Professor, Vocational Education

Dr. Daniel E. Vogler, Director, Vocational Education

SPECIAL GUESTS

Dr. Henry Brickell, Director, Institute for Policy Studies in Education

Dr. J. Chester McKee, Council of Graduate Schools

NATIONAL RESOURCE PANEL

Dr. Donald Clark, Associate Dean for Research, College of Education, Texas A&M University

Dr. Carl Dolce, Dean, School of Education, North Carolina State University

Dr. Norman N. Durham, Dean, Graduate College, Oklahoma State University

Dr. Billy N. Pope, Coordinator, Texas Consortium

Dr. Carl Schaefer, Professor, Rutgers University

Dr. Sylvia Tucker, Dean, College of Education, Oregon State University

USOE REPRESENTATIVES

Mr. Frank Perazzoli

Dr. Duane Neilsen

PROJECT STAFF

Dr. Gordon I. Swanson, Professor, Vocational Education, University of Minnesota (Project Director)

Ms. Katy Greenwood, Administrative Assistant, Vocational Education, University of Minnesota

Mr. John Skinkle, Research Fellow, Vocational Education, University of Minnesota

ADDENDUM D

DEPARTMENTAL FUNCTIONS, DEPARTMENTAL OBJECTIVES, AND CRITERION QUESTIONS

(UNIVERSITY OF MISSOURI)*

*The content of this addendum was referenced in the presentation by Dr. Henry M. Brickell.

FUNCTIONS OF THE DEPARTMENT OF PRACTICAL ARTS AND VOCATIONAL-TECHNICAL EDUCATION

For an organization to be most effective and efficient it must have some clearly identifiable functions, goals or objectives which provide direction to the activities of the members of that organization. In an attempt to provide a clear-cut direction for the activities of the staff members within the department of Practical Arts and Vocational-Technical Education, the following objectives have been formulated.

The staff and physical resources assigned to the Department of PAVTE shall be committed to the development of programs which will:

1. Prepare classroom teachers for programs of practical arts and vocational-technical education at the elementary, secondary, post-secondary, and adult levels. More specifically, this implies the establishment and maintenance of:

   a. Baccalaureate degree programs for teachers of agricultural education, business education, distributive education, home economics education, industrial arts education, technical education, and trade and industrial education.

   b. Programs or patterns of experience appropriate to the development of teaching competencies by persons who possess occupational competencies but who are not pursuing a baccalaureate degree. Provisions shall be made for teachers of the occupational fields specified in the State Plan for Vocational Education in the State of Missouri.

2. Improve the effectiveness of teachers involved in programs of practical arts and vocational-technical education. More specifically, this implies the establishment and maintenance of:

   a. Graduate degree programs appropriate to the needs of teachers in the field. Some of the needs will be met by experiences closely related to the subject matter to be taught while others will require experiences related to philosophy, purposes, curriculum development, learning theory, methodology, instructional technology and evaluation. A conscious effort will be made to help the teacher become an effective consumer of research.

   b. In-service experiences which are not necessarily a part of a graduate degree program that will meet the instructional needs of teachers of practical arts and vocational-technical education programs at the various levels.

3. Assist experienced educators in the development of leadership competencies necessary to supervise and administer practical arts and vocational-technical education programs. More specifically, this implies the establishment and maintenance of:

   a. Graduate programs leading to the Master's Degree and the Specialist's Certificate through which individuals may acquire or further develop those competencies necessary for effective supervision and administration.

   b. Programs of in-service experience which may or may not be related to a degree program that seek to increase the leadership capabilities of professional personnel responsible for programs of practical arts and vocational-technical education.

4. Prepare and further develop professional personnel who can effectively carry out teacher education and activities related to the various types and levels of programs in practical arts and vocational-technical education. More specifically, this implies the establishment and maintenance of:

   a. Graduate programs leading to the Specialist's Certificate, the Doctor of Education Degree and the Doctor of Philosophy Degree which will permit individuals to become more effective teacher educators, instructional materials specialists, researchers and other specialists which may be required to support programs of teacher education.

5. Contribute to the body of knowledge associated with the teaching-learning process as related to practical arts and vocational-technical education and especially to increase the knowledge associated with the selection, preparation, placement and effective occupational adjustment of vocational education students. More specifically, this requires the establishment and maintenance of:

   a. An educational program whereby professionals may gain competencies necessary to the conduct of research as well as a knowledge of research findings and their application to education problems.

   b. The direct involvement of staff members in research activities.

   c. The encouragement of professionals involved in local programs to field test research findings and apply them to specific educational situations.

6. Promote the development and improvement of local programs of practical arts and vocational-technical education. More specifically, this function requires that:

   a. Staff members serve in consultative capacities to local communities, i.e., program planning and evaluation.

   b. The department assist in the development, preparation and distribution of instructional materials.

7. Provide encouragement and leadership to the education profession in general and to the professional areas specific to the programs of practical arts and vocational-technical education. This function can be carried out through:

   a. Activities for undergraduate and graduate students which will help them to become acquainted with and involved in organized professional activity.

   b. Direct involvement of staff members in activities of state, regional and national professional groups.

8. Promote a high degree of scholarship related to the theory and practice which is applicable to the various facets of the broad field of practical arts and vocational-technical education. This function can be achieved, in part, as:

   a. Courses and other student activities are organized in a manner which will encourage a "spirit of inquiry"

and the development of a problem-solving attitude as well as careful attention to the organization and communication of ideas.

b. Staff members organize and present their ideas relative to the theory and practice of their "discipline" through publication and presentations before professional and lay groups.

9. Provide opportunities for college students who are not enrolled in departmental degree programs to have experiences with the subject matter inherent within the various areas of the department. More specifically, this function is carried out through:

a. Enrollment of graduate students from other fields within professional education to provide them with increased insight relative to the practical arts and vocational-technical education.

b. Enrollment of university students in technical courses for the potential practical application or the relevancy of the subject matter to other areas of study.

PAVTE DEPARTMENTAL OBJECTIVES

Objective I

Prepare a sufficient number of teachers to meet state needs for programs of practical arts, vocational and technical education at the elementary, secondary, post-secondary and adult levels. More specifically, this implies:

I.A. Baccalaureate degree programs for teachers of agricultural education, business education, distributive education, home economics education, industrial arts education, technical education, and trade and industrial education through which individuals gain professional competence, become employed in positions related to their preparation, continue in their jobs, are satisfied with their training, and cause employers to be satisfied with their performance.

Criterion Question I.A.: To what extent have (1) baccalaureate degree programs have been provided, (2) degrees have been awarded and (3) professionally competent graduates have been placed in programs of agricultural education, business education, distributive education, home economics education, and industrial education at the elementary, secondary, post-secondary and adult levels?

I.A.1. How many persons per year receive the baccalaureate degree in agricultural education, business education, and industrial education at the University of Missouri-Columbia?

I.A.2. How many students per year in agricultural education, business education, distributive education, home economics education, and industrial education leave the program without completing degree and/or certification requirements at the University of Missouri-Columbia?

I.A.3. How many of the baccalaureate graduates in agricultural education, business education, home

economics education, distributive education, and industrial education receive employment related to their training the first year after graduation (e.g. teacher, related employment, etc.)?

I.A.4. How many baccalaureate graduates in agricultural education, business education, distributive education, home economics education, and industrial education are employed in the field in which they are trained three years after graduation?

I.A.5. How well satisfied are the program graduates and non-graduates of agricultural education, business education, distributive education, home economics education and industrial education with the education they received?

I.A.6. How do the employers rate the professional competence of the program graduates prepared through the Department of Practical Arts and Vocational-Technical Education at the University of Missouri-Columbia?

I.A.7. To what extent has the program been developed utilizing feedback from the field?

I.B. Programs or patterns of experience whereby persons who possess occupational competencies but who are not pursuing a baccalaureate degree may develop teaching competencies. These programs shall enable occupationally competent individuals to meet certification requirements as specified in the Missouri State Plan for Vocational Education.

Criterion Question I.B.: To what extent have (1) certification programs been provided, (2) certificates been awarded, and (3) professionally competent individuals been placed in programs in secondary, post-secondary and adult levels as a direct result of educational experiences sponsored by the Department of Practical Arts and Vocational-Technical Education?

I.B.1. How many persons are certified annually to teach in the various areas of vocational education by the State Department of Elementary and Secondary Education through course work not taken concurrently with a degree program?

I.B.2. How many persons who received certification through course work not taken concurrently with a degree program received employment the first year after completing certification requirements (e.g. teachers, related employment, etc.)?

I.B.3. How many persons who received certification through course work not taken concurrently with a degree program are employed three years after certification in the field for which they were certified?

I.B.4. How well satisfied are the persons with the education they received for certification through course work not taken concurrently with a degree program?

I.B.5. How do the employers rate the professional competence of the persons who meet non-degree course work certification requirements through the Department?

I.B.6. To what extent has the program been developed utilizing feedback from the field?

Objective II

Provide appropriate programs designed to improve and/or expand the competencies of teachers and other professional personnel involved in practical arts, vocational and technical education. More specifically, this implies:

II.A. Master's degree programs appropriate to the needs of teachers and other professional personnel in the field. Some of the needs will be met by experiences closely related to the subject matter to be taught while others will require experience related to educational philosophy, purposes, curriculum development, learning theory, methodology, instructional technology, evaluation, research, administration and management.

Criterion Question II.A.: To what extent have (1) Master's degree programs been provided, (2) degrees been awarded and (3) competent graduates been placed in programs related to agricultural education, business education, distributive education, home economics education, health occupations and industrial education at the elementary, secondary, post-secondary, and adult levels?

II.A.1. How many persons received the Master's degree annually at the University of Missouri-Columbia who are prepared to teach or assume educational roles related to programs of practical arts, vocational and technical education?

II.A.2. How many of the Master's degree graduates secured employment the first year after graduation or continued to be employed in the field in which they were trained?

II.A.3. How many of the Master's degree graduates are employed in the field in which they received preparation three years after graduation?

II.A.4. How satisfied are the Master's degree graduates with the education they received through the Department?

II.A.5. How competent are the Master's degree graduates as indicated by their grade point average and faculty ratings?

II.A.6. How do the employers rate the professional competencies of the Master's degree graduates prepared through the Department?

II.A.7. To what extent has the Master's degree program been developed utilizing feedback from the field?

II.B. In-service experience which will meet the needs of teachers and other professional personnel in practical arts, vocational and technical education programs at various levels.

Criterion Question II.B.: To what extent have in-service programs been provided that meet the needs of teachers and other professional personnel who work directly with programs of practical arts, vocational and technical education?

II.B.1. In what geographic areas within the State of Missouri do in-service experiences need to be offered?

II.B.2. In what geographic areas within the State of Missouri are in-service programs being offered by the faculty in the Department?

II.B.3. In what service areas are in-service programs being offered?

II.B.4. How well satisfied are the participants involved in on-going in-service programs?

II.B.5. Are there features of the in-service program that tend to discourage teachers and other professional personnel from becoming involved?

II.B.6. To what extent has the in-service program been developed utilizing feedback from local and state levels?

Objective III

Prepare and further develop professional personnel who can effectively carry out teacher education, curriculum development, supervision, administration, research, and other activities related to the various types and levels of programs in practical arts, vocational and technical education. More specifically, this implies:

III.A. Graduate programs leading to the Certificate of Specialization in Education and the doctoral degrees which will permit individuals to become more effective teacher educators, instructional materials specialists, supervisors, researchers, and in other professional roles which are required to support programs of practical arts, vocational, and technical education.

Criterion Question III.A.: To what extent have the Certificate of Specialization and doctoral programs been provided; graduate degrees awarded; and professionally competent graduates been placed as teacher educators, instructional materials specialists, researchers, supervisors, and in other professional roles?

III.A.1. How many persons receive the Certificate of Specialization in Education annually at the University of Missouri-Columbia in each of the program areas of the Department of Practical Arts and Vocational-Technical Education?

III.A.2. What types of positions are secured by persons who receive the Certificate of Specialization in Education annually at the University of Missouri-Columbia in each of the program areas of the Department of Practical Arts and Vocational-Technical Education?

III.A.3. How many persons receive the doctoral degree annually at the University of Missouri-Columbia in each of the program areas of the Department of Practical Arts and Vocational-Technical Education?

III.A.4. What types of positions are secured by persons who receive the doctoral degree annually at the University of Missouri-Columbia in each of the program areas of the Department of Practical Arts and Vocational Education?

III.A.5. How many persons who receive the Certificate of Specialization in Education through the Department of Practical Arts and Vocational-Technical Education are employed or continue to be employed in the field in which they were trained?

III.A.6. How many persons after receiving the Certificate of Specialization in Education through the Department of Practical Arts and Vocational-Technical Education are employed or continue to be employed in the field in which they were trained?

III.A.7. How many persons who receive the doctoral degree through the Department of Practical Arts and Vocational-Technical Education receive employment in the first year after graduation?

III.A.8. How many persons who receive the doctoral degree through the Department of Practical Arts and Vocational-Technical Education continue to be employed in the field in which they were trained?

III.A.9. How competent are the Certificate of Specialization graduates at the completion of their degree program as indicated by their grade point average and faculty ratings?

III.A.10. How competent are the doctoral degree graduates at the completion of their degree program as indicated by their grade point average and faculty ratings?

III.A.12. How satisfied and dissatisfied are the Certificate of Specialization and doctoral graduates with the education received through the programs of the department?

III.A.13. To what extent is the supply of graduates of the doctoral and Certificate of Specialization programs consistent with the state and national demands?

Objective IV

Contribute to the body of knowledge associated with the teaching-learning process as related to practical arts, vocational, and technical education and especially to increase the knowledge associated with the establishment and maintenance of effective educational programs through which individuals develop desired competencies. More specifically, this implies:

IV.A. An educational program whereby professionals may gain competencies necessary to the conduct of research as well as knowledge of research findings and their implications for educational problems.

Criterion Question IV.A.: To what extent have opportunities been provided which facilitate the development of research competencies associated with the establishment, administration, operation and teaching of vocational programs by post-baccalaureate degree candidates and graduates?

IV.A.1. What opportunities were provided to gain research competencies within the Department of Practical Arts and Vocational-Technical Education?

IV.A.2. How many of the post-baccalaureate graduates of the Department of Practical Arts and Vocational-Technical Education are presently involved in some type of research?

IV.A.3. What percent of the post-baccalaureate graduates of the Department of Practical Arts and Vocational-Technical Education are involved in research as an integral part of the position they hold?

IV.A.4. What percent of the post-baccalaureate graduates of the Department of Practical Arts and Vocational-Technical Education are involved or engaged in research as a project assumed outside the requirements of their position?

IV.A.5. What percent of time do the post-baccalaureate graduates of the Department of Practical Arts and Vocational-Technical Education spend on research activity which is an integral part of their position?

IV.A.6. What percent of time do the post-baccalaureate graduates of the Department of Practical Arts and Vocational-Technical Education spend on research activity which is assumed outside the requirements of their positions?

IV.A.7. How do supervisors rate the research competence and productivity of the post-baccalaureate graduates of the department?

IV.B. The direct involvement of the faculty members in research activities.

Criterion Question IV.B.: To what extent has the faculty of the Department of Practical Arts and Vocational-Technical Education been involved in research activities both on campus and in the field?

IV.B.1. How many full-time equivalent staff members are currently involved in research related activities?

IV.B.2. In what areas of research are faculty members currently involved?

IV.B.3. How many faculty members are involved in interdisciplinary or intradisciplinary research?

IV.B.4. How many members of the faculty are currently involved in inter-institutional research?

IV.B.5. How many faculty members are involved in research and development activities supported by the State Department of Elementary and Secondary Education?

IV.B.6. To what extent and in what ways does the research conducted by faculty members relate to state and national needs?

IV.B.7. In what types of research are the faculty members currently involved, e.g., experimental, developmental, or descriptive?

IV.B.8. What are the outcomes of faculty research activities in terms of reports, journal articles, papers, speeches, new instructional practices, instructional materials, and student involvement?

IV.C. The encouragement of local program personnel to field test research findings and apply them to specific educational situations.

Criterion Question IV.C.: To what extent are faculty members involved in assisting local program personnel in field testing research findings?

IV.C.1. How many faculty members are assisting local program personnel in field testing of developmental activities and research findings?

IV.C.2. To what extent are local personnel being rewarded for their research related activities?

Objective V

Provide services and materials designed to improve programs of practical arts, vocational and technical education at all levels. More specifically, this implies:

V.A. Members of the faculty serving in consultative capacities to communities, i.e., program planning and evaluation, either on or off campus.

Criterion Question V.A.: To what extent has the faculty of the Department of Practical Arts and Vocational-Technical Education been involved in consultative work with programs of practical arts, vocational and technical education?

V.A.1. To what extent have faculty members been involved in the development of instructional materials for distribution to programs of practical arts, vocational and technical education with the State of Missouri?

V.A.2. How many faculty members are involved in program evaluation and accreditation visits conducted by the State Department of Elementary and Secondary Education and/or the North Central Association?

V.A.3. How many faculty members conducted classes, seminars, or workshops related to the improvement of instruction and/or evaluation?

V.A.4. In what ways have faculty members been involved with the State Department of Elementary and Secondary Education in the establishment of pilot, demonstration, or exemplary programs?

V.A.5. In what ways have faculty members been involved in leadership training sessions for student leaders in youth organizations and/or for chapter advisors?

V.A.6. In what ways have faculty members provided leadership to research and developmental projects being implemented by professionals in the field?

V.A.7. In what ways have faculty members worked with school personnel in curriculum development activities?

V.B. The Instructional Materials Laboratory of the Department of Practical Arts and Vocational-Technical Education (in consultation with committees of teachers and administrators) develop, produce, and distribute instructional material for direct classroom use and home study by students.

Criterion Question V.B.: To what extent has the Instructional Materials Laboratory produced and distributed instructional materials at a reasonable cost to be used at the elementary, secondary, and post-secondary level?

V.B.1. How many instructor guides and media packets have been produced for programs of practical arts, vocational, and technical education?

V.B.2. To what extent are teacher educators, local agency staffs and state department personnel involved in determining the need for new materials or the revision of existing guides?

V.B.3. How many student study guides and handouts have been produced for student use in programs of practical arts, vocational, and technical education?

V.B.4. How many instructor guides, student study guides, media packets, etc., have been sold in relation to the number produced for programs of practical arts, vocational, and technical education?

V.B.5. To what extent have cost analysis techniques been used to determine a per unit cost for development, production, and dissemination of instructional materials which is then used to establish a market price for the materials?

V.C. Criterion Question: To what extent to the instructional materials produced and/or distributed through the Instructional Materials Laboratory facilitate teaching and learning?

V.C.1. How do the students who use the individual study guides, handouts, etc., rate their usefulness as aids to learning?

V.C.2. How do the instructors who use the instructor guides and media packets rate them as instructional aids which facilitate teaching and learning?

V.C.3. To what extent do employers indicate that student learning materials related to on-the-job instruction are relevant to the needs of the student in the work setting?

V.C.4. To what extent do the instructional materials facilitate learning by permitting the student to proceed more rapidly or gain a higher level of competence in a given period of time?

Objective VI

Provide encouragement and leadership to the education profession in general and specifically to the professional organizations directly related to programs of practical arts, vocational, and technical education. More specifically, this implies:

VI.A. Activities for undergraduate and graduate students of the Department of Practical Arts and Vocational-Technical Education which will help them to become familiar with, and involved in, professional activities.

Criterion Question VI.A.: To what extent have activities been provided for graduate and undergraduate students which encourage involvement in professional activities; to what extent have students participated in these activities; and in what professional activities do graduates of the Department of Practical Arts and Vocational-Technical Education participate?

VI.A.1. What service area related student organizations are supported by the Department of Practical Arts and Vocational-Technical Education?

VI.A.2. What percent of the graduate and undergraduate students in the Department of Practical Arts and Vocational-Technical Education are members of service area related student organizations?

VI.A.3. In which courses of the Department of Practical Arts and Vocational-Technical Education do objectives related to the development of professionalism exist?

VI.A.4. To what extent is attention given, through seminars, youth groups, etc., by the Department of Practical Arts and Vocational-Technical Education to encourage involvement in professional organizations?

VI.A.5. In which professional organizations, and to what extent, do graduates of the Department of Practical Arts and Vocational-Technical Education hold memberships?

VI.A.6. What leadership positions do graduates of the Department of Practical Arts and Vocational-Technical Education hold in professional associations?

VI.A.7. What percent of the graduates of the Department of Practical Arts and Vocational-Technical Education attend state meetings or conventions?

VI.A.8. In what way do graduates of the Department of Practical Arts and Vocational-Technical Education participate in state meetings or conventions?

VI.A.9. What percent of the graduates of the Department of Practical Arts and Vocational-Technical Education are advisors of youth organizations in their respective areas?

VI.B. Direct involvement of faculty members in activities of state, regional and national professional groups.

Criterion Question VI.B.: To what extent have faculty members: (1) held memberships in professional organizations, (2) assumed leadership roles in professional organizations?

VI.B.1. In which professional organizations does each faculty member hold membership?

VI.B.2. To what extent do faculty members participate in local, state and/or national professional organizations?

VI.B.3. What positions of leadership and supportive roles have faculty members held in professional organizations at the local, state, regional, and national level during the past five years?

Objective VII

Promote and exhibit a high degree of scholarship related to the theory and practice which is applicable to the various facets of the broad field of practical arts, vocational and technical education. More specifically, this implies:

VII.A. Courses and other student activities of the Department of Practical Arts and Vocational-Technical Education are organized in a manner which will encourage inquiry and the development of a problem-solving attitude as well as careful attention to the organization and communication of ideas.

Criterion Question VII.A.: To what extent do courses and other educational activities for students of the Department of Practical Arts and Vocational-Technical Education encourage inquiry and the development of problem-solving skills as well as careful attention to the organization and communication of ideas?

VII.A.1. In which courses within the Department of Practical Arts and Vocational-Technical Education do objectives relate to inquiring and problem-solving behavior of the student in terms of the total goals of the course?

VII.A.2. How do students rate the Department of Practical Arts and Vocational-Technical Education courses in regard to the development of inquiry and problem-solving skills?

VII.A.3. How do graduates of the Department of Practical Arts and Vocational-Technical Education rate the departmental courses in regard to the development of inquiry and problem-solving skills?

VII.A.4. What student activities are organized in a manner which reflects the pursuit of inquiry and problem-solving skills?

VII.A.5. How do students of the Department of Practical Arts and Vocational-Technical Education rate the various student activities as they relate to the pursuit of inquiry and problem-solving skills?

VII.A.6. How do graduates of the Department of Practical Arts and Vocational-Technical Education rate the various student activities as they relate to the pursuit of inquiry and problem-solving skills?

VII.B. That faculty members of the Department of Practical Arts and Vocational-Technical Education organize and present their ideas relative to the theory and practice of their "discipline" through publication and presentations before professional and lay groups.

Criterion Question VII.B.: To what extent do faculty members organize and present their ideas relative to the theory and practice of thier "discipline" through publication, presentations before professional and lay groups and through the instructional program?

VII.B.1. How many local, state, regional, and national articles have been published by each faculty member within the last two years?

VII.B.2. In what journals were the articles published?

VII.B.3. How many presentations has each faculty member made to professional and lay groups on the local, state, regional, and/or national levels within the last two years?

VII.B.4. How do the clients of faculty scholarship rate the quality of faculty scholarship?

Objective VIII

Provide opportunities for college students who are not enrolled in degree programs of the Department of Practical Arts and Vocational-Technical Education to have experiences with the subject matter inherent within the various areas of the Department. More specifically, this implies:

VIII.A. Enrollment of graduate students from other professional education areas and graduate students outside the field of education to provide them with increased insight relative to programs of practical arts, vocational, and technical education.

Criterion Question VIII.A.: To what extent has enrollment of graduate students from other professional education areas and graduate students outside the field of education provided them with knowledge relative to the area of practical arts, vocational and technical education?

VIII.A.1. How many graduate students from other areas of professional education and fields outside of education enroll in department courses? Are they completing their Master's degree, Certificate of Specialization, or doctoral degree?

VIII.B. Enrollment of undergraduate and graduate students from other professional education areas and students in fields outside the field of education in courses offered through the Department of Practical Arts and Vocational-Technical Education for the expressed purpose of showing the practical application or the relevancy of the practical arts, vocational, and technical education subject matter to other areas of study.

Criterion Question VIII.B.: To what extent has enrollment of undergraduate and graduate students from other professional education areas and students in fields outside the field of education provided for the potential practical application or the relevancy of the subject matter to other areas of study?

VIII.B.1. How many undergraduate and graduate students from other professional education areas and students in fields outside the field of education enroll in the Department of Practical Arts and Vocational-Technical Education courses?

VIII.B.2. How do these non-majors rate the relevance of the course work which they have taken in the Department?